



# A20

HELAVIA® grommets and mouldings in polychloroprene rubber





SES-STERLING has modern sophisticated conversion equipment backed by our research laboratory keeping us at the forefront of technology. Design and manufacture of the moulds plus full maintenance facilities give us control of production at all stages.

A large proportion of our manufacturing capacity is devoted to the moulding of Neoprene elastomer, which has properties of particular relevance to the electrical industry.

The main properties are:

- very good resistance to ageing
- good ozone resistance
- good electrical insulation
- exceptional flexibility
- fair resistance to oils
- available in varying degrees of flexibility from 40 to 70 Shore hardness A

SES-STERLING has many years experience in moulding Polychloroprene.

SES-STERLING is synonymous with guarantee of quality.

SES-STERLING sells polychloroprene grommets branded HELAVIA®.

SES-STERLING can supply you with following standard moulded parts from stock:

**Grommets in different forms**

**Membrane grommets**

**Reinforced grommets**

**Wire-clamp grommets**

**Wire protector grommets**

**Caps**

**Feet**

**Flanged and bushed grommets in specific shapes**

**Special grommets**

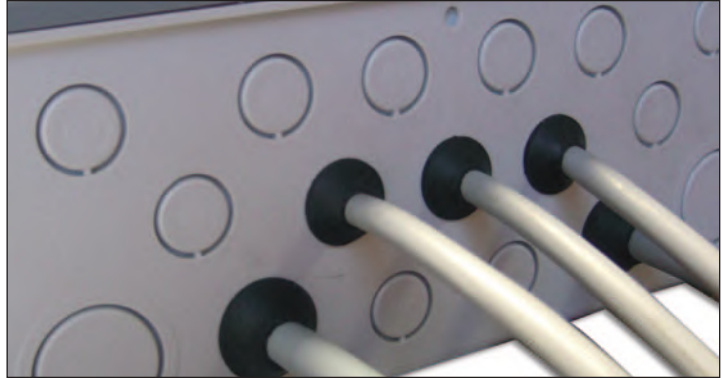
With our know-how, we can adapt any specific demand on the material (silicone, EPDM, ...) and colours (white, grey, ...).

# Universal grommets DU in EPDM rubber

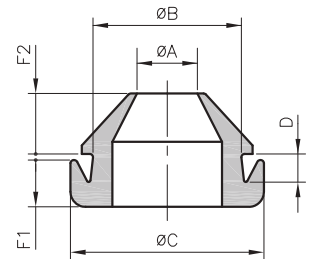


## DU

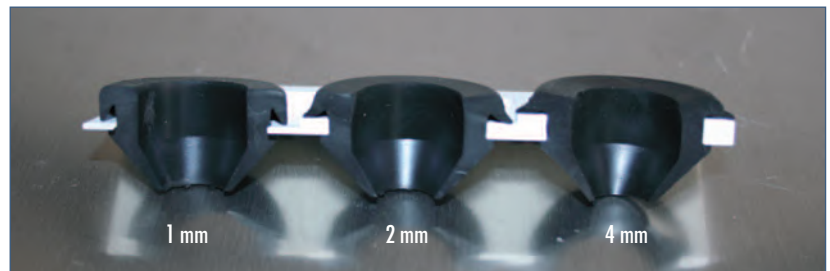
<b>Material:</b>	EPDM
<b>Colour:</b>	black
<b>Operating temperatures:</b>	-40 to +100°C
<b>Ultimate elongation:</b>	> 400 %
<b>Dielectric strength:</b>	> 13 kV/mm
<b>Resistance to ozone:</b>	very good
<b>Specification:</b>	halogene free



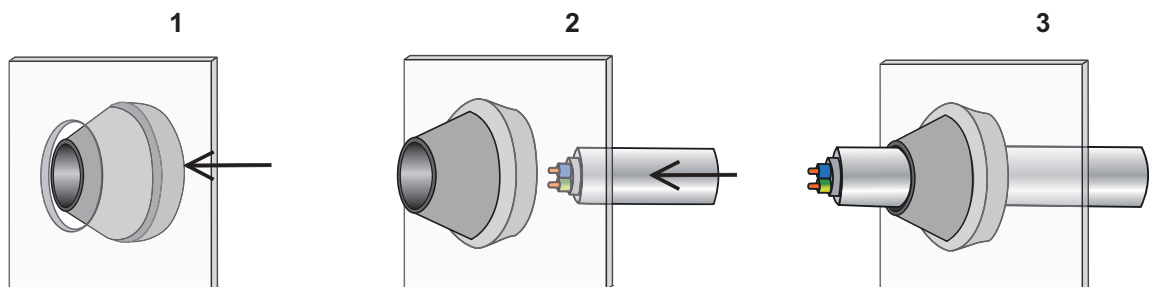
type	artide number	dimensions (mm)						pcs
		Ø A	Ø B	Ø C	D	F1	F2	
DU-M20	0252 0653 010	8-13	20	25,5	1...4	6,2	8	100
DU-M25	0252 0654 010	10-17	25	31	1...4	6,2	10,5	100



**Specification:** only one grommet adapting to a wall thickness of 1 to 4 mm.



## Mounting principle



# HELAVIA® standard grommets DA in black polychloroprene rubber (Neoprene)



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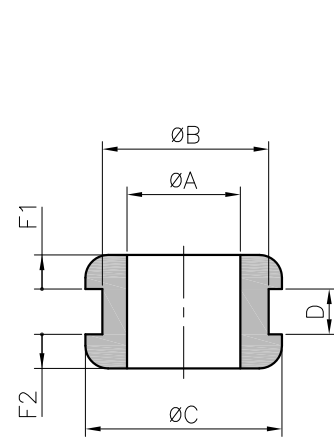


## DA

**Material:** polychloroprene rubber  
**Colour:** black  
**Operating temperatures:** -30 to +90°C  
**Tensile strength at break:** > 7 MPa  
**Ultimate elongation:** > 400 %  
**Dielectric strength:** > 13 kV/mm



type	article number	dimensions (mm)						pcs
		Ø A	Ø B	Ø C	D	F1	F2	
DA 20/65/10	0252 0001 010	2	6,5	11	1	2	2	100
DA 20/65/15	0252 0002 010	2	6,5	11	1,5	2	2	100
DA 20/65/20	0252 0003 010	2	6,5	11	2	2	2	100
DA 20/80/10	0252 0004 010	2	8	11	1	2	2	100
DA 20/80/15	0252 0005 010	2	8	11	1,5	2	2	100
DA 20/80/20	0252 0006 010	2	8	11	2	2	2	100
DA 30/50/10	0252 0101 010	3	5	10	1	1,5	3	100
DA 30/70/10	0252 0135 010	3	7	10	1	1,5	3	100
DA 30/70/15	0252 0136 010	3	7	10	1,5	1,5	3	100
DA 30/70/20	0252 0137 010	3	7	10	2	1,5	3	100
DA 30/70/30	0252 0138 010	3	7	10	3	1,5	3	100
DA 30/70/35	0252 0102 010	3	7	10	3,5	1,5	3	100
DA 40/65/10	0252 0010 010	4	6,5	11	1	2	2	100
DA 40/80/10	0252 0007 010	4	8	11	1	2	2	100
DA 40/80/15	0252 0008 010	4	8	11	1,5	2	2	100
DA 40/80/20	0252 0009 010	4	8	11	2	2	2	100
DA 45/95/10	0252 0085 010	4,5	9,5	13	1	4,5	4,5	100
DA 45/95/15	0252 0086 010	4,5	9,5	13	1,5	4,5	4,5	100
DA 45/95/20	0252 0087 010	4,5	9,5	13	2	4,5	4,5	100
DA 48/80/10	0252 0139 010	4,8	8	12	1	1,5	1,5	100
DA 48/80/15	0252 0140 010	4,8	8	12	1,5	1,5	1,5	100
DA 48/80/20	0252 0141 010	4,8	8	12	2	1,5	1,5	100
DA 48/80/30	0252 0142 010	4,8	8	12	3	1,5	1,5	100
DA 48/85/10	0252 0348 010	4,8	8,5	12	1	1,5	1,5	100
DA 48/85/15	0252 0349 010	4,8	8,5	12	1,5	1,5	1,5	100
DA 48/85/20	0252 0350 010	4,8	8,5	12	2	1,5	1,5	100
DA 48/85/30	0252 0011 010	4,8	8,5	12	3	1,5	1,5	100
DA 50/70/10	0252 0130 010	5	7	11	1	2,8	2,8	100
DA 50/70/15	0252 0131 010	5	7	11	1,5	2,8	2,8	100
DA 50/70/20	0252 0132 010	5	7	11	2	2,8	2,8	100
DA 50/70/30	0252 0152 010	5	7	11	3	2,8	2,8	100
DA 50/90/10	0252 0171 010	5	9	15	1	3	8	100
DA 50/90/15	0252 0172 010	5	9	15	1,5	3	8	100
DA 50/90/20	0252 0173 010	5	9	15	2	3	8	100
DA 50/90/30	0252 0174 010	5	9	15	3	3	8	100



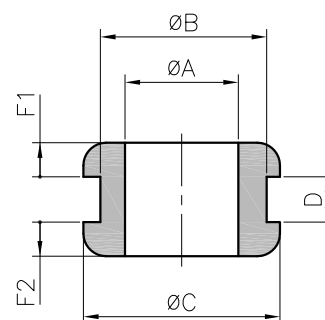
# HELAVIA® standard grommets DA in black polychloroprene rubber (Neoprene)



HELAVIA®



type	article number	dimensions (mm)						pieces
		Ø A	Ø B	Ø C	D	F1	F2	
DA 55/80/10	0252 0013 010	5,5	8	11	1	2	2	100
DA 55/80/15	0252 0014 010	5,5	8	11	1,5	2	2	100
DA 55/80/20	0252 0015 010	5,5	8	11	2	2	2	100
DA 58/100/15	0252 0016 010	5,8	10	16	1,5	3,8	3,8	100
DA 60/90/10	0252 0133 010	6	9	14	1	3	3	100
DA 60/90/15	0252 0017 010	6	9	14	1,5	3	3	100
DA 60/90/20	0252 0134 010	6	9	14	2	3	3	100
DA 60/90/30	0252 0153 010	6	9	14	3	3	3	100
DA 60/90/40	0252 0178 010	6	9	14	4	3	3	100
DA 60/100/10	0252 0018 010	6	10	14	1	3	3	100
DA 60/100/15	0252 0019 010	6	10	14	1,5	3	3	100
DA 60/100/20	0252 0020 010	6	10	14	2	3	3	100
DA 60/100/30	0252 0021 010	6	10	14	3	3	3	100
DA 60/100/40	0252 0373 010	6	10	14	4	3	3	100
DA 60/110/10	0252 0022 010	6	11	16	1	1,8	1,8	100
DA 60/110/15	0252 0023 010	6	11	16	1,5	1,8	1,8	100
DA 60/110/20	0252 0024 010	6	11	16	2	1,8	1,8	100
DA 60/110/30	0252 0143 010	6	11	16	3	1,8	1,8	100
DA 60/110/50	0252 0154 010	6	11	14	5	3	3	100
DA 60/120/10	0252 0144 010	6	12	16	1	1,8	1,8	100
DA 60/120/15	0252 0145 010	6	12	16	1,5	1,8	1,8	100
DA 60/120/20	0252 0146 010	6	12	16	2	1,8	1,8	100
DA 60/120/30	0252 0025 010	6	12	16	3	1,8	1,8	100
DA 70/120/10	0252 0147 010	7	12	16	1	3,3	3,3	100
DA 70/120/15	0252 0148 010	7	12	16	1,5	3,3	3,3	100
DA 70/120/20	0252 0088 010	7	12	16	2	3,3	3,3	100
DA 70/120/30	0252 0149 010	7	12	16	3	3,3	3,3	100
DA 75/110/10	0252 0351 010	7,5	11	20	1	3,5	3,5	100
DA 75/110/15	0252 0352 010	7,5	11	20	1,5	3,5	3,5	100
DA 75/110/20	0252 0353 010	7,5	11	20	2	3,5	3,5	100
DA 75/110/30	0252 0354 010	7,5	11	20	3	3,5	3,5	100
DA 75/110/40	0252 0355 010	7,5	11	20	4	3,5	3,5	100
DA 75/110/50	0252 0110 010	7,5	11	20	5	3,5	3,5	100
DA 75/120/10	0252 0089 010	7,5	12	20	1	3,5	3,5	100
DA 75/120/15	0252 0090 010	7,5	12	20	1,5	3,5	3,5	100
DA 75/120/20	0252 0091 010	7,5	12	20	2	3,5	3,5	100
DA 75/120/30	0252 0092 010	7,5	12	20	3	3,5	3,5	100
DA 75/120/60	0252 0026 010	7,5	12	20	6	3,5	3,5	100
DA 80/100/10	0252 0027 010	8	10	15	1	3,5	3,5	100
DA 80/100/15	0252 0028 010	8	10	15	1,5	3,5	3,5	100
DA 80/100/20	0252 0029 010	8	10	15	2	3,5	3,5	100
DA 80/100/30	0252 0030 010	8	10	15	3	3,5	3,5	100
DA 80/100/40	0252 0031 010	8	10	15	4	3,5	3,5	100
DA 80/110/10	0252 0155 010	8	11	15	1	3,5	3,5	100
DA 80/110/15	0252 0032 010	8	11	15	1,5	3,5	3,5	100
DA 80/110/20	0252 0033 010	8	11	15	2	3,5	3,5	100
DA 80/110/30	0252 0156 010	8	11	15	3	3,5	3,5	100
DA 80/110/40	0252 0157 010	8	11	15	4	3,5	3,5	100



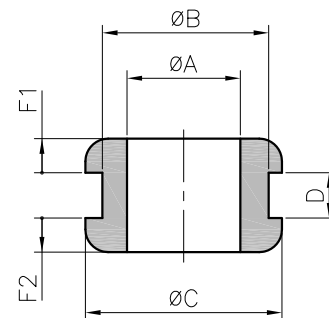
# HELAVIA® standard grommets DA in black polychloroprene rubber (Neoprene)



HELAVIA®



type	article number	dimensions (mm)						pieces
		Ø A	Ø B	Ø C	D	F1	F2	
DA 80/160/10	0252 0364 010	8	16	20	1	3	3	100
DA 80/160/15	0252 0365 010	8	16	20	1,5	3	3	100
DA 80/160/20	0252 0366 010	8	16	20	2	3	3	100
DA 80/160/30	0252 0367 010	8	16	20	3	3	3	100
DA 80/160/40	0252 0368 010	8	16	20	4	3	3	100
DA 80/160/60	0252 0175 010	8	16	20	6	3	3	100
DA 90/110/10	0252 0036 010	9	11	16	1	2,8	2,8	100
DA 90/110/15	0252 0037 010	9	11	16	1,5	2,8	2,8	100
DA 90/110/20	0252 0038 010	9	11	16	2	2,8	2,8	100
DA 90/110/30	0252 0039 010	9	11	16	3	2,8	2,8	100
DA 90/110/40	0252 0040 010	9	11	16	4	2,8	2,8	100
DA 90/160/10	0252 0158 010	9	16	22	1	4	4	100
DA 90/160/15	0252 0041 010	9	16	22	1,5	4	4	100
DA 90/160/20	0252 0159 010	9	16	22	2	4	4	100
DA 90/160/30	0252 0160 010	9	16	22	3	4	4	100
DA 90/160/40	0252 0161 010	9	16	22	4	4	4	100
DA 90/200/20	0252 0042 010	9	20	27	2	3,3	3,3	100
DA 90/200/30	0252 0043 010	9	20	27	3	3,3	3,3	100
DA 90/200/40	0252 0044 010	9	20	27	4	3,3	3,3	100
DA 95/130/10	0252 0045 010	9,5	13	17,5	1	3	3	100
DA 95/130/15	0252 0046 010	9,5	13	17,5	1,5	3	3	100
DA 95/130/20	0252 0047 010	9,5	13	17,5	2	3	3	100
DA 95/130/30	0252 0048 010	9,5	13	17,5	3	3	3	100
DA 95/130/40	0252 0049 010	9,5	13	17,5	4	3	3	100
DA 95/130/50	0252 0050 010	9,5	13	17,5	5	3	3	100
DA 95/130/80	0252 0051 010	9,5	13	17,5	8	3	3	100
DA 95/140/10	0252 0356 010	9,5	14	17,5	1	3	3	100
DA 95/140/15	0252 0357 010	9,5	14	17,5	1,5	3	3	100
DA 95/140/20	0252 0179 010	9,5	14	17,5	2	3	3	100
DA 95/140/30	0252 0359 010	9,5	14	17,5	3	3	3	100
DA 95/140/40	0252 0358 010	9,5	14	17,5	4	3	3	100
DA 100/140/10	0252 0180 010	10	14	20	1	2	2	100
DA 100/140/15	0252 0181 010	10	14	20	1,5	2	2	100
DA 100/140/20	0252 0182 010	10	14	20	2	2	2	100
DA 100/140/25	0252 0183 010	10	14	20	2,5	2	2	100
DA 100/140/30	0252 0184 010	10	14	20	3	2	2	100
DA 100/160/10	0252 0360 010	10	16	20	1	2	2	100
DA 100/160/15	0252 0083 010	10	16	20	1,5	2	2	100
DA 100/160/20	0252 0361 010	10	16	20	2	2	2	100
DA 100/160/25	0252 0362 010	10	16	20	2,5	2	2	100
DA 100/160/30	0252 0363 010	10	16	20	3	2	2	100
DA 110/140/10	0252 0093 010	11	14	19	1	3	3	100
DA 110/140/15	0252 0052 010	11	14	19	1,5	3	3	100
DA 110/140/20	0252 0094 010	11	14	19	2	3	3	100
DA 110/140/30	0252 0095 010	11	14	19	3	3	3	100
DA 110/150/10	0252 0053 010	11	15	19	1	3	3	100
DA 110/150/15	0252 0054 010	11	15	19	1,5	3	3	100
DA 110/150/20	0252 0055 010	11	15	19	2	3	3	100
DA 110/150/25	0252 0056 010	11	15	19	2,5	3	3	100
DA 110/150/30	0252 0057 010	11	15	19	3	3	3	100



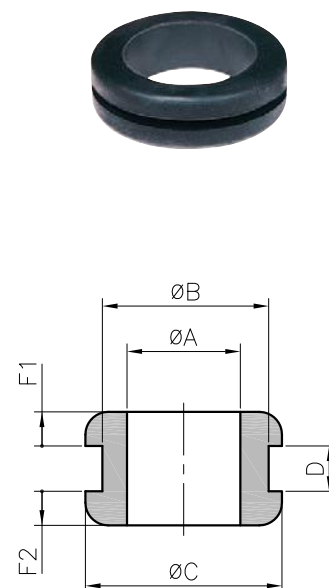
# HELAVIA® standard grommets DA in black polychloroprene rubber (Neoprene)



HELAVIA®



type	article number	dimensions (mm)						pcs
		Ø A	Ø B	Ø C	D	F1	F2	
DA 120/180/10	0252 0162 010	12	18	25	1	2,5	2,5	100
DA 120/180/15	0252 0163 010	12	18	25	1,5	2,5	2,5	100
DA 120/180/20	0252 0164 010	12	18	25	2	2,5	2,5	100
DA 120/180/30	0252 0165 010	12	18	25	3	2,5	2,5	100
DA 120/180/40	0252 0166 010	12	18	25	4	2,5	2,5	100
DA 120/200/10	0252 0167 010	12	20	25	1	2,5	2,5	100
DA 120/200/15	0252 0168 010	12	20	25	1,5	2,5	2,5	100
DA 120/200/20	0252 0169 010	12	20	25	2	2,5	2,5	100
DA 120/200/30	0252 0170 010	12	20	25	3	2,5	2,5	100
DA 120/200/40	0252 0058 010	12	20	25	4	2,5	2,5	100
DA 120/255/80	0252 0176 010	12	25,5	40	8	4	4	100
DA 120/280/80	0252 0177 010	12	28	40	8	4	4	100
DA 130/170/10	0252 0151 010	13	17	23	1	4	4	100
DA 130/170/15	0252 0059 010	13	17	23	1,5	4	4	100
DA 130/170/20	0252 0060 010	13	17	23	2	4	4	100
DA 130/170/30	0252 0061 010	13	17	23	3	4	4	100
DA 130/170/40	0252 0062 010	13	17	23	4	4	4	100
DA 130/170/50	0252 0069 010	13	17	23	5	4	4	100
DA 130/170/60	0252 0063 010	13	17	23	6	4	4	100
DA 140/200/10	0252 0064 010	14	20	28	1	4	4	100
DA 140/200/15	0252 0065 010	14	20	28	1,5	4	4	100
DA 140/200/20	0252 0066 010	14	20	28	2	4	4	100
DA 140/200/30	0252 0067 010	14	20	28	3	4	4	100
DA 140/200/40	0252 0068 010	14	20	28	4	4	4	100
DA 150/220/10	0252 0096 010	15	22	26	1	4,5	4,5	100
DA 150/220/15	0252 0097 010	15	22	26	1,5	4,5	4,5	100
DA 150/220/20	0252 0098 010	15	22	26	2	4,5	4,5	100
DA 150/220/30	0252 0099 010	15	22	26	3	4,5	4,5	100
DA 150/220/80	0252 0070 010	15	22	26	8	4,5	4,5	100
DA 160/220/10	0252 0071 010	16	22	29,5	1	4	4	100
DA 160/220/15	0252 0072 010	16	22	29,5	1,5	4	4	100
DA 160/220/20	0252 0073 010	16	22	29,5	2	4	4	100
DA 160/220/30	0252 0074 010	16	22	29,5	3	4	4	100
DA 185/250/10	0252 0343 010	18,5	25	32,5	1	4,5	4,5	100
DA 185/250/15	0252 0075 010	18,5	25	32,5	1,5	4,5	4,5	100
DA 185/250/20	0252 0344 010	18,5	25	32,5	2	4,5	4,5	100
DA 185/250/25	0252 0345 010	18,5	25	32,5	2,5	4,5	4,5	100
DA 185/250/30	0252 0346 010	18,5	25	32,5	3	4,5	4,5	100
DA 185/250/40	0252 0347 010	18,5	25	32,5	4	4,5	4,5	100
DA 200/280/10	0252 0150 010	20	28	36	1	5	5	50
DA 200/280/15	0252 0076 010	20	28	36	1,5	5	5	50
DA 200/280/20	0252 0077 010	20	28	36	2	5	5	50
DA 200/280/30	0252 0078 010	20	28	36	3	5	5	50
DA 200/280/40	0252 0079 010	20	28	36	4	5	5	50
DA 200/280/60	0252 0080 010	20	28	36	6	5	5	50
DA 230/300/20	0252 0186 010	23	30	38	2	3,5	3,5	50
DA 230/300/30	0252 0187 010	23	30	38	3	3,5	3,5	50
DA 230/300/40	0252 0188 010	23	30	38	4	3,5	3,5	50
DA 230/300/60	0252 0189 010	23	30	38	6	3,5	3,5	50



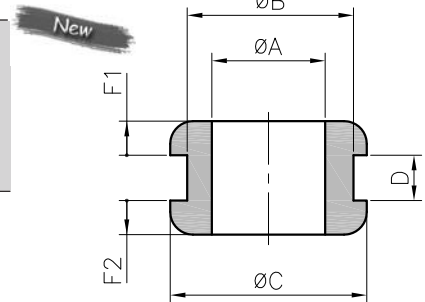
# HELAVIA® standard grommets DA in black polychloroprene rubber (Neoprene)



HELAVIA®



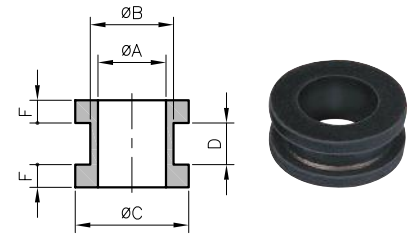
type	article number	dimensions (mm)						pcs
		Ø A	Ø B	Ø C	D	F1	F2	
DA 250/470/10	0252 0369 010	25	47	56,5	1	4,5	4,5	50
DA 250/470/15	0252 0081 010	25	47	56,5	1,5	4,5	4,5	50
DA 250/470/20	0252 0370 010	25	47	56,5	2	4,5	4,5	50
DA 250/470/30	0252 0371 010	25	47	56,5	3	4,5	4,5	50
DA 250/470/40	0252 0372 010	25	47	56,5	4	4,5	4,5	50
DA 300/350/10	0252 0330 010	30	35	40	1	4	4	50
DA 300/350/15	0252 0331 010	30	35	40	1,5	4	4	50
DA 300/350/20	0252 0332 010	30	35	40	2	4	4	50
DA 300/350/30	0252 0333 010	30	35	40	3	4	4	50
DA 300/350/40	0252 0334 010	30	35	40	4	4	4	50
DA 380/440/10	0252 0374 010	38	44	54	1	5	5	25
DA 380/440/15	0252 0375 010	38	44	54	1,5	5	5	25
DA 380/440/20	0252 0376 010	38	44	54	2	5	5	25
DA 380/440/30	0252 0377 010	38	44	54	3	5	5	25
DA 380/440/40	0252 0378 010	38	44	54	4	5	5	25
DA 480/600/20	0252 0335 010	48	60	68	2	3,8	3,8	25
DA 480/600/25	0252 0082 010	48	60	68	2,5	3,8	3,8	25
DA 480/600/30	0252 0336 010	48	60	68	3	3,8	3,8	25
DA 480/600/40	0252 0337 010	48	60	68	4	3,8	3,8	25
DA 480/600/60	0252 0338 010	48	60	68	6	3,8	3,8	25





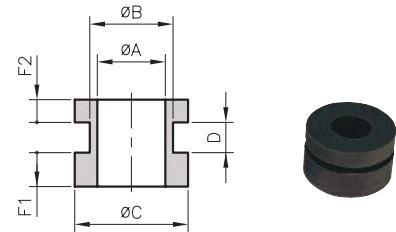
**• HELAVIA standard grommets DC**

type	article number	dimensions (mm)					pces
		Ø A	Ø B	Ø C	D	F	
DC 51/70/15	0252 0213 010	5,1	7	11	1,5	3	100
DC 70/250/60	0252 0220 010	7	25	29	6	2	100
DC 90/110/10	0252 0201 010	9	11	16	1	3,3	100
DC 90/110/15	0252 0202 010	9	11	16	1,5	3,3	100
DC 90/110/20	0252 0203 010	9	11	16	2	3,3	100
DC 90/110/30	0252 0204 010	9	11	16	3	3,3	100
DC 90/110/40	0252 0212 010	9	11	16	4	3,3	100
DC 190/250/65	0252 0206 010	19	25	32	6,5	3	50
DC 190/250/135	0252 0207 010	19	25	32	13,5	3	50
DC 350/400/50	0252 0221 010	35	40	50	5	2,75	50
DC 940/1010/30	0252 0211 010	94	101	109	3	5,5	25



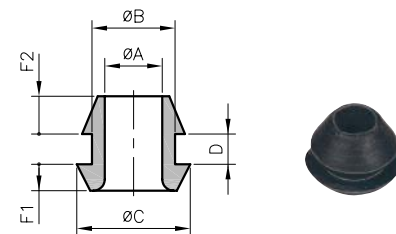
**• Grommets with unequal sides series DC**

type	article number	dimensions (mm)							pces
		Ø A	Ø B	Ø C	D	F1	F2		
DC 50/70/10	0252 0214 010	5	7	11	1	2	3,5	100	



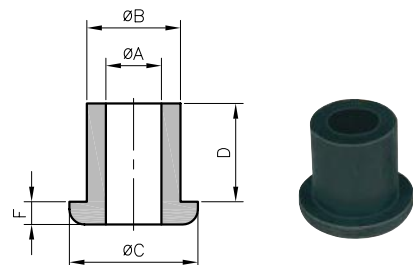
**• Conical grommets series DE**

type	article number	dimensions (mm)							pces
		Ø A	Ø B	Ø C	D	F1	F2		
DE 65/100/10	0252 0299 010	6,5	10	16/14	1	3	5	100	
DE 65/100/15	0252 0308 010	6,5	10	16/14	1,5	3	5	100	
DE 65/100/20	0252 0304 010	6,5	10	16/14	2	3	5	100	
DE 65/100/30	0252 0300 010	6,5	10	16/14	3	3	5	100	



**• Elongated grommets series DH**

type	article number	dimensions (mm)					pces
		Ø A	Ø B	Ø C	D	F	
DH 60/90/80	0252 0340 010	6	9	14	8	3	100
DH 80/115/50	0252 0321 010	8	11,5	16	5	4	100
DH 80/115/80	0252 0322 010	8	11,5	16	8	4	100
DH 80/115/160	0252 0323 010	8	11,5	16	16	4	100
DH 120/200/200	0252 0326 010	12	20	27,5	20	5	50
DH 130/200/150	0252 0328 010	13	20	28	15	5	100
DH 140/200/200	0252 0327 010	14	20	28	20	5	50
DH 240/300/350	0252 0324 010	24	30	38	35	5	25
DH 250/310/330	0252 0320 010	25	31	37	33	5	25
DH 300/390/400	0252 0329 010	30	39	55	40	10	25
DH 350/450/500	0252 0341 010	35	45	57	50	10	25



# HELAVIA® membrane grommets DG in black polychloroprene rubber

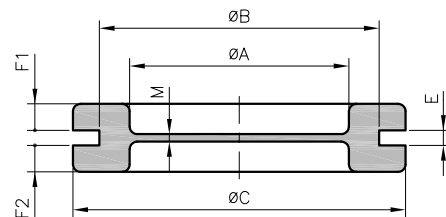


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## DG HELAVIA

**Material:** polychloroprene rubber  
**Colours:** black - grey (near RAL 7037)  
**Operating temperatures:** -30 to +90°C  
**Tensile strength at break:** 7 MPa  
**Ultimate elongation:** > 400 %  
**Dielectric strength:** > 13 kV/mm  
**Applications:** designed to close off unused entries in panels, enclosures and housings of all types. Wires and conduits can pass through the membrane if required.



### • Standard membrane (1 and 1,5 mm)

type	article number		dimensions (mm)							pcs
	black 010	grey 013	Ø A	Ø B	Ø C	E	F1	F2	M	
DG 9/E1	0258 0361 010	0258 0361 013	9	15,5	20	1	3,5	2,5	1	100
DG 9	0258 0351 010	0258 0351 013	9	15,5	20	2	2,5	2,5	1	100
DG 11	0258 0352 010	0258 0352 013	11	18,5	23	2	2,5	2,5	1	100
DG 13,5	0258 0353 010	0258 0353 013	13,5	20,5	25	2	2,5	2,5	1	100
DG 16	0258 0354 010	0258 0354 013	16	22,5	27,5	2	2,5	2,5	1	100
DG 21	0258 0355 010	0258 0355 013	21	28	35	2	3	3	1	100
DG 29	0258 0356 010	0258 0356 013	29	37	44	2	3,5	3,5	1	50
DG 36	0258 0357 010	0258 0357 013	36	47	54	2,5	3,8	3,8	1	50
DG 48	0258 0358 010	0258 0358 013	48	60	68	2,5	3,8	3,8	1	50
DG 53	0258 0359 010	0258 0359 013	53	64	75	2,5	3,8	3,8	1,5	50
DG 69	0258 0360 010	0258 0360 013	69	79	90	2,5	3,8	3,8	1,5	50
DG M16	0258 0011 010	0258 0011 013	9	16	20	2	2,5	2,5	1	100
DG M20	0258 0012 010	0258 0012 013	13,5	20	25	2	2,5	2,5	1	100
DG M25	0258 0013 010	0258 0013 013	18,5	25	30,5	2	2,5	2,5	1	100
DG M32	0258 0014 010	0258 0014 013	25	32	39	2	3	3	1	100
DG M40	0258 0015 010	0258 0015 013	31	40	47	2,5	3,8	3,8	1	50
DG M50	0258 0016 010	0258 0016 013	39	50	57	2,5	3,8	3,8	1	50
DG M63	0258 0017 010	0258 0017 013	53	63	75	2,5	3,8	3,8	1	50
DG M68	0258 0019 010	0258 0019 013	53	68	75	2,5	3,8	3,8	1,5	50
DG M75	0258 0018 010	0258 0018 013	65	75	87	2,5	3,8	3,8	1	50

### • Thick membrane

type	article number	dimensions (mm)							pcs
	black 010	Ø A	Ø B	Ø C	E	F1	F2	M	
DG 16/E3	0258 0449 010	16	22,5	27,5	3	2,5	2,5	2	100
DG 16/E4	0258 0440 010	16	22,5	27,5	4	2,5	2,5	3	100
DG 21/E4	0258 0441 010	21	28	35	4	3	3	3	100
DG 29/E6	0258 0445 010	29	37	44	6	3,5	3,5	5	100
DG 36/E3	0258 0362 010	36	47	54	3	3,8	5	3	100

# HELAVIA® membrane grommets DG in black polychloroprene rubber

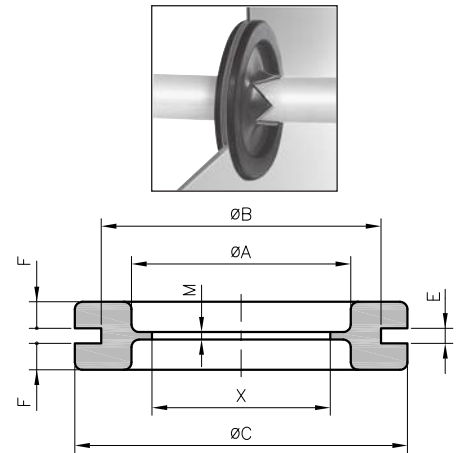


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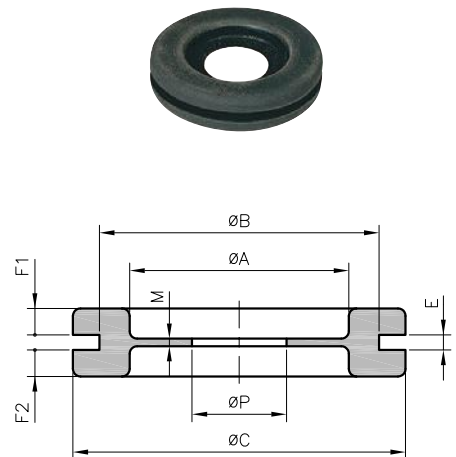
## • Cross-cut membrane

type	article number	dimensions (mm)							pcs
		Ø A	Ø B	Ø C	E	F	M	X	
DGC 11	0258 0401 010	11	18,5	23	2	2,5	1	10	100
DGC 13,5	0258 0402 010	13,5	20,5	25	2	2,5	1	10	100
DGC 16	0258 0403 010	16	22,5	27,5	2	2,5	1	14	100
DGC 21	0258 0404 010	21	28	35	2	3	1	17	100
DGC 29	0258 0405 010	29	37	44	2	3,5	1	25	50
DGC 36	0258 0406 010	36	47	54	2,5	3,8	1	32	50
DGC 48	0258 0407 010	48	60	68	2,5	3,8	1	42	50
DGC 53	0258 0408 010	53	64	75	2,5	3,8	1,5	48	50



## • Perforated membrane

type	article number	dimensions (mm)									pcs
		Ø A	Ø B	Ø C	E	F1	F2	M	Ø P		
DG 9/4,5	0258 0415 010	9	15,5	20	2	2,5	2,5	1	4,5	100	
DG 11/3,5	0258 0419 010	11	18,5	23	2	2,5	2,5	1	3,5	100	
DG 11/4,5	0258 0416 010	11	18,5	23	2	2,5	2,5	1	4,5	100	
DG 13,5/4,5	0258 0417 010	13,5	20,5	25	2	2,5	2,5	1	4,5	100	
DG 13,5/8	0258 0418 010	13,5	20,5	25	2	2,5	2,5	1	8	100	
DG 16/5	0258 0431 010	16	22,5	27,5	2	2,5	2,5	1	5	100	
DG 16/10	0258 0420 010	16	22,5	27,5	2	2,5	2,5	1	10	100	
DG 16/15	0258 0427 010	16	22,5	27,5	2	2,5	2,5	1	15	100	
DG 16/15E3	0258 0423 010	16	22,5	27,5	3	2,5	2,5	2	15	100	
DG 21/3	0258 0438 010	21	28	35	2	3	3	1	3	100	
DG 21/5	0258 0439 010	21	28	35	2	3	3	1	5	100	
DG 21/6	0258 0436 010	21	28	35	2	3	3	1	6	100	
DG 21/10	0258 0432 010	21	28	35	2	3	3	1	10	100	
DG 21/18	0258 0421 010	21	28	35	2	3	3	1	18	100	
DG 21/20	0258 0422 010	21	28	35	2	3	3	1	20	100	
DG 29/10	0258 0433 010	29	37	44	2	3,5	3,5	1	10	50	
DG 29/14	0258 0434 010	29	37	44	2	3,5	3,5	1	14	50	
DG 29/18	0258 0429 010	29	37	44	2	3,5	3,5	1	18	50	
DG 36/10	0258 0447 010	36	47	54	2,5	3,8	3,8	1	10	50	
DG 36/14	0258 0430 010	36	47	54	2,5	3,8	3,8	1	14	50	
DG 36/19E3	0258 0451 010	36	47	54	3	3,8	5	3	19,2	50	
DG 36/32	0258 0435 010	36	47	54	2,5	3,8	3,8	1	32	50	
DG 48/14	0258 0446 010	48	60	68	2,5	3,8	3,8	1	14	50	
DG 48/16	0258 0443 010	48	60	68	2,5	3,8	3,8	1	16	50	
DG 48/22	0258 0444 010	48	60	68	2,5	3,8	3,8	1	22	50	
DG 53/52	0258 0448 010	53	64	75	2,5	3,8	3,8	1,5	52	50	
DG 69/16	0258 0426 010	69	79	90	2,5	3,8	3,8	1,5	16	50	
DG 69/36	0258 0437 010	69	79	90	2,5	3,8	3,8	1,5	36	50	
DG 69/55	0258 0442 010	69	79	90	2,5	3,8	3,8	1,5	55	50	



On request other cut-outs are possible.

# HELAVIA® membrane grommets DG in black polychloroprene rubber



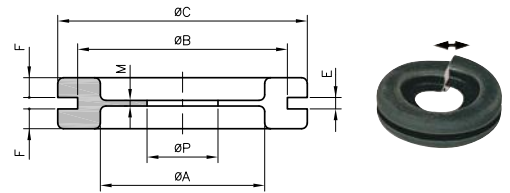
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type	artide number	dimensions (mm)							pcs
		Ø A	Ø B	Ø C	E	F	M	Ø P	

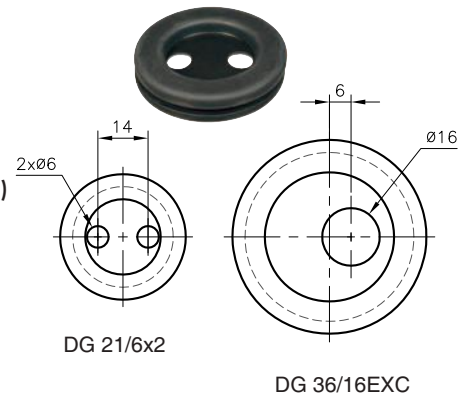
## • Cut series with perforated membrane

DG 21/3F	0258 0424 010	21	28	35	2	3	1	3	100
DG 48/30F	0258 0428 010	48	60	68	2,5	3,8	1	30	50



## • Special perforated membrane

DG 21/6x2	0258 0450 010	21	28	35	2	3	1	6	100 (2 holes)
DG 36/16EXC	0258 0425 010	36	47	54	2,5	3,8	1	16	50 (off-centered)



# HELAVIA® sleeved grommets in polychloroprene rubber

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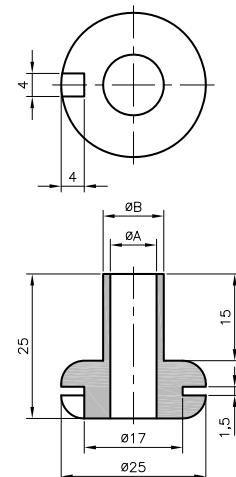


## 15-2\*\*

<b>Material:</b>	polychloroprene rubber
<b>Colour:</b>	black
<b>Operating temperatures:</b>	-30 to +90°C
<b>Tensile strength at break:</b>	> 7 MPa
<b>Ultimate elongation:</b>	> 400 %
<b>Dielectric strength:</b>	> 13 kV/mm
<b>Applications:</b>	protection of cables in the passage of sheet steel, and protection against twisting.



type	artide number	dimensions (mm)		pcs
		ØA	ØB	
15-206	0259 0019 010	2	4,3	100
15-201	0259 0020 010	4	6,3	100
15-202	0259 0021 010	6	8,3	100
15-203	0259 0022 010	8	10,5	100
15-204	0259 0023 010	10,5	13,5	100
15-205	0259 0024 010	13	16	100



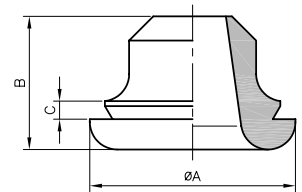
**DV**

**Material:** polychloroprene rubber  
**Colours:** black  
**Operating temperatures:** -30 to +90°C  
**Tensile strength at break:** > 8 MPa  
**Ultimate elongation:** > 600 %  
**Dielectric strength:** > 13 kV/mm  
**Applications:** for protection and strain relief, very effective when used with SES-QUICK cable ties, in the passages of boxes, of cupboards or crankcase, etc.



**• DV wire-clamps in Bags, without ties**

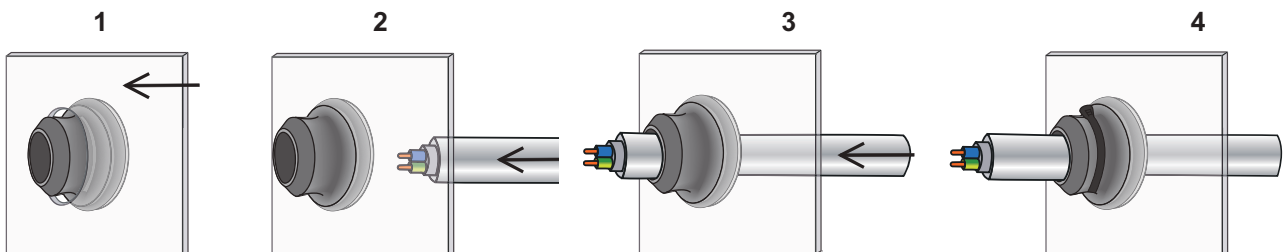
type	article number	dimensions (mm)					pcs	cable ties to be used	
		housing Ø	wire Ø	Ø A	B	C		type	article number
DV 4 / 9	0252 0511 010	16	4 - 9	24	18,6	3	100	145/34 SL-C	0186 0979 010
DV 7 / 12	0252 0521 010	19	7 - 12	28	18,7	3	100	145/34 SL-C	0186 0979 010
DV 12 / 18	0252 0531 010	25	12 - 18	34	22	3	100	185/46 SL-C	0186 0983 010
DV 18 / 25	0252 0541 010	32	18 - 25	43	24	3	50	185/46 SL-C	0186 0983 010
DV 25 / 32	0252 0551 010	38	25 - 32	51	24,5	4	50	185/46 SL-C	0186 0983 010



**• DV wire-clamps in Bags, with ties**

type	article number	dimensions (mm)					pcs	delivered with ties
		housing Ø	wire Ø	Ø A	B	C		
DV 4 / 9	0252 0510 010	16	4 - 9	24	18,6	3	10	145/34 SL-C
DV 7 / 12	0252 0520 010	19	7 - 12	28	18,7	3	10	145/34 SL-C
DV 12 / 18	0252 0530 010	25	12 - 18	34	22	3	10	185/46 SL-C
DV 18 / 25	0252 0540 010	32	18 - 25	43	24	3	5	185/46 SL-C
DV 25 / 32	0252 0550 010	38	25 - 32	51	24,5	4	5	185/46 SL-C

**Assembly instruction**



# HELAVIA® grommets DX, in EPDM rubber



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## DX

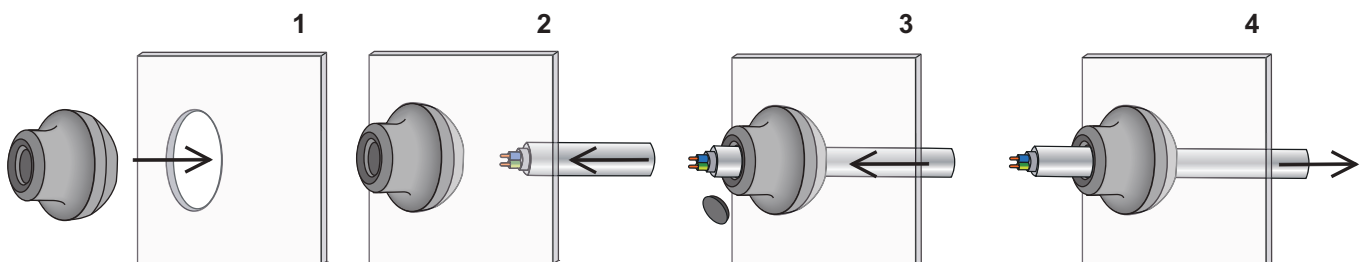
**Material:** EPDM  
**Colours:** black  
**Operating temperatures:** -40 to +100°C  
**Tensile strength at break:** > 8 MPa  
**Ultimate elongation:** > 400 %  
**Dielectric strength:** > 13 kV/mm

**Applications:** for all exits of panels, enclosures and housings of all types, etc. Owing to the closed cover, it is possible to use it as a temporary seal for a later wiring. In order to introduce the cable, the cover can be performed for example with the help of a screwdriver.



type	article number	hole Ø	Ø de câbles	dimensions (mm)			C	pcs	
				metal thickness	Ø A	Ø B			
DX 10 - 15	0252 0603 010	25,5	10 - 15	1 - 4	31	29	26	100	
DX 14 - 20	0252 0604 010	32,5	14 - 20	1 - 4	38	36	28	50	

### Assembly instruction



# DX grommets, sealing in EPDM rubber



DX



## DX-M / DX-PG

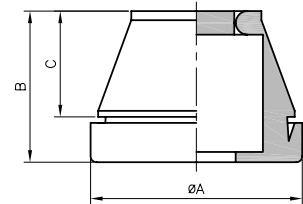
**Material:** EPDM  
**Colours:** black  
 light grey (RAL 7035)  
**Operating temperatures:** -40 to +110°C  
**Specification:** IP 67 according to EN 60 529

**Applications:** grommets, sealing for all exits of panels, enclosures and housings of all types, etc.



### • Metric grommets

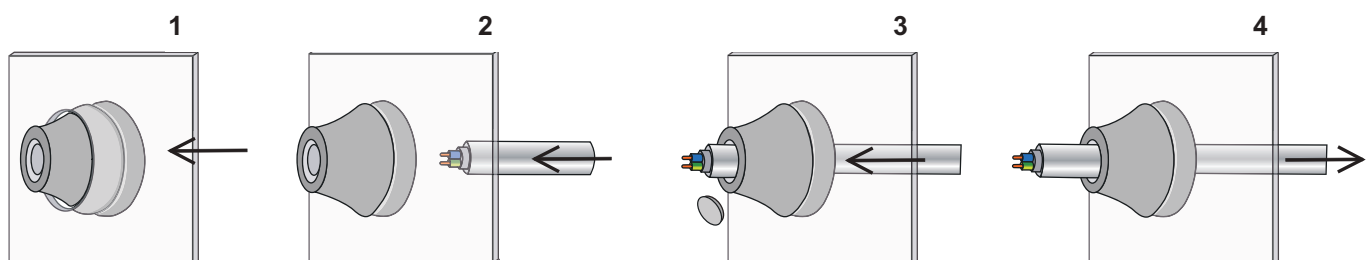
type	article number		cable Ø	hole Ø	dimensions (mm)			pcs	
	black 010	grey 025			metal thickness	Ø A	B		C
DX-M 12	0252 0610 010	0252 0610 025	4 - 7	12,5	0,5 - 2	20	12,8	5,6	50
DX-M 16	0252 0611 010	0252 0611 025	5 - 9	16,5	1 - 4	21	17,7	11	50
DX-M 20	0252 0612 010	0252 0612 025	8 - 12	20,5	1 - 4	25,5	20	13,4	50
DX-M 25	0252 0613 010	0252 0613 025	11 - 16	25,5	1 - 4	30,5	21,3	15,3	50
DX-M 32	0252 0614 010	0252 0614 025	15 - 20	32,5	1 - 4	38,5	24,6	18,6	25
DX-M 40	0252 0615 010	0252 0615 025	19 - 28	40,5	1 - 4	48,5	29,5	21,7	25
DX-M 50	0252 0616 010	0252 0616 025	27 - 35	50,5	1 - 4	60,5	34,8	25	10



### • PG grommets

type	article number		cable Ø	hole Ø	dimensions (mm)			pcs	
	black 010	grey 025			metal thickness	Ø A	B		C
DX-PG 7	0252 0620 010	0252 0620 025	3 - 5	13	0,5 - 2	20	12,6	5,4	50
DX-PG 9	0252 0621 010	0252 0621 025	5 - 7	16	1 - 4	21	17,8	10,3	50
DX-PG 11	0252 0622 010	0252 0622 025	7 - 10	19	1 - 4	24	19,8	12,7	50
DX-PG 16	0252 0623 010	0252 0623 025	10 - 14	23	1 - 4	28	21,6	14,7	50
DX-PG 21	0252 0624 010	0252 0624 025	14 - 20	29	1 - 4	35	24,6	17,6	25
DX-PG 29	0252 0625 010	0252 0625 025	20 - 26	38	1 - 4	46	28,5	20	25
DX-PG 36	0252 0626 010	0252 0626 025	26 - 35	48	1 - 4	58	34,9	23,9	10

### Assembly instruction



# HELAVIA® semi-special grommets in black polychloroprene rubber

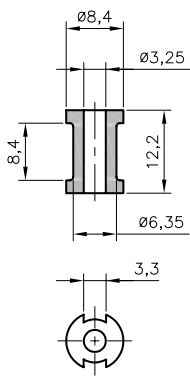


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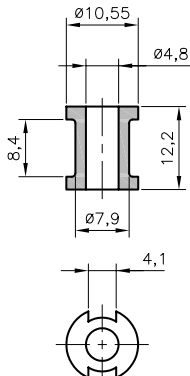


type	article number		type	article number		type	article number	
15-010	0257 0020 010	100	15-565	0257 0019 010	100	15-679	0257 0061 010	100
15-033	0257 0001 010	100	15-580 SNCF*	0257 0168 010	100	15-687	0257 0062 010	100
15-076	0257 0003 010	100	15-595	0257 0034 010	100	15-734	0257 0004 010	15
15-093	0257 0005 010	100	15-610 SNCF*	0257 0035 010	1	15-742	0257 0063 010	100
15-187	0257 0008 010	100	15-611	0257 0036 010	100	15-746	0257 0064 010	100
15-309	0257 0009 010	25	15-612	0257 0037 010	100	15-803 SNCF*	0257 0066 010	1
15-377	0257 0012 010	100	15-613	0257 0038 010	100	15-808	0257 0067 010	50
15-394	0257 0033 010	100	15-614	0257 0039 010	100	15-819 SNCF*	0257 0071 010	1
15-519	0257 0017 010	100	15-644**	0257 0040 010	25	15-820 SNCF*	0257 0072 010	1
15-539 SNCF*	0257 0118 010	100	15-645	0257 0041 010	100			

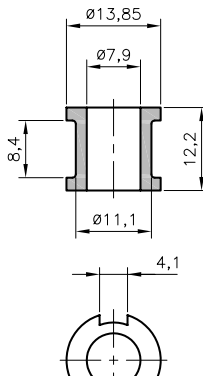
\* Nitrile rubber  
\*\* EPDM rubber



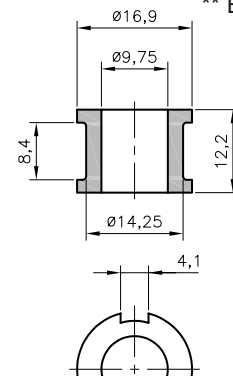
**15-611**  
0257 0036 010



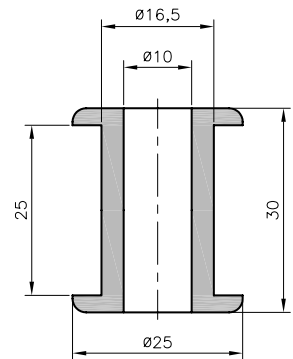
**15-612**  
0257 0037 010



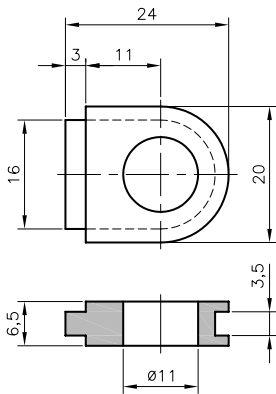
**15-613**  
0257 0038 010



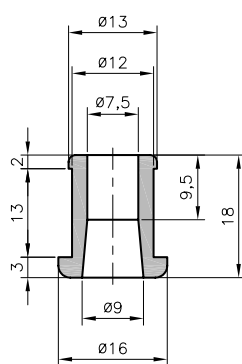
**15-614**  
0257 0039 010



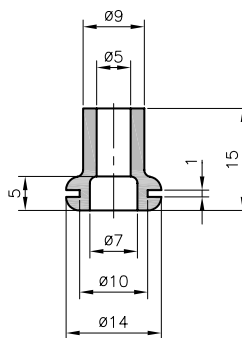
**15-645**  
0257 0041 010



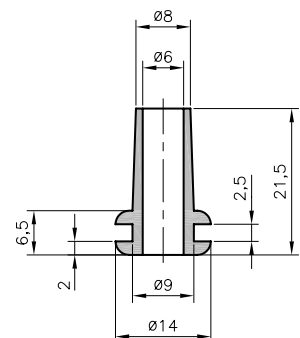
**15-746**  
0257 0064 010



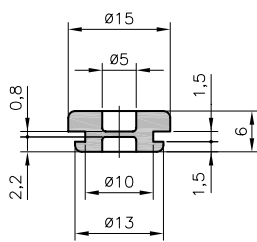
**15-565**  
0257 0019 010



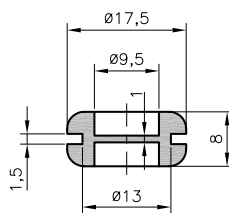
**15-187**  
0257 0008 010



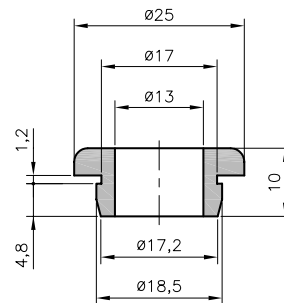
**15-679**  
0257 0061 010



**15-377**  
0257 0012 010



**15-076**  
0257 0003 010



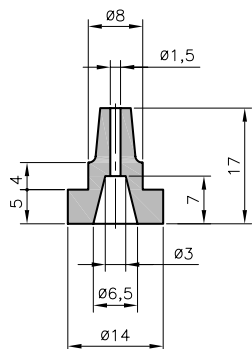
**15-687**  
0257 0062 010



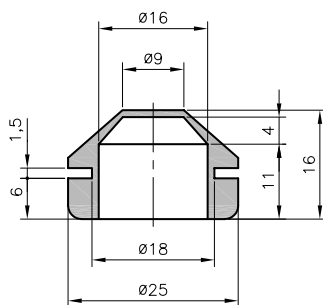
**HELAVIA® semi-special grommets**  
in black polychloroprene rubber



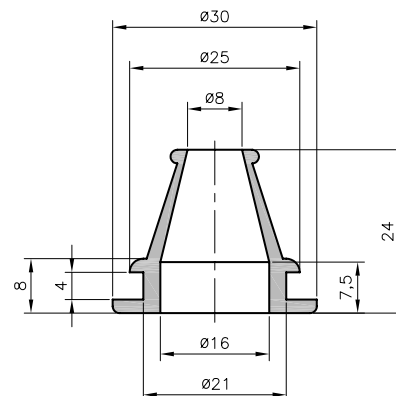
HELAVIA®



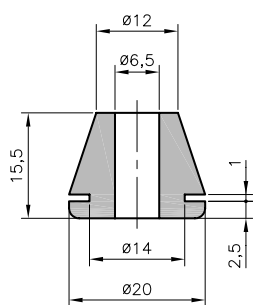
**15-394**  
0257 0033 010



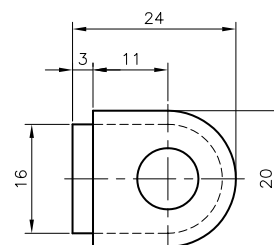
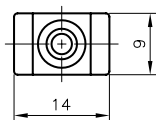
**15-093**  
0257 0005 010



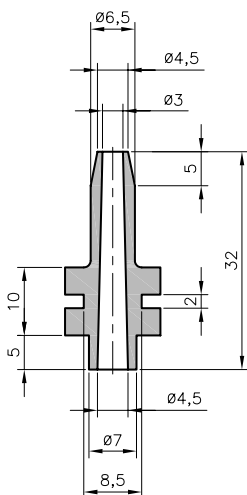
**15-033**  
0257 0001 010



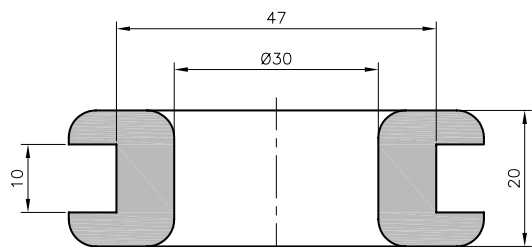
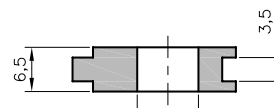
**15-519**  
0257 0017 010



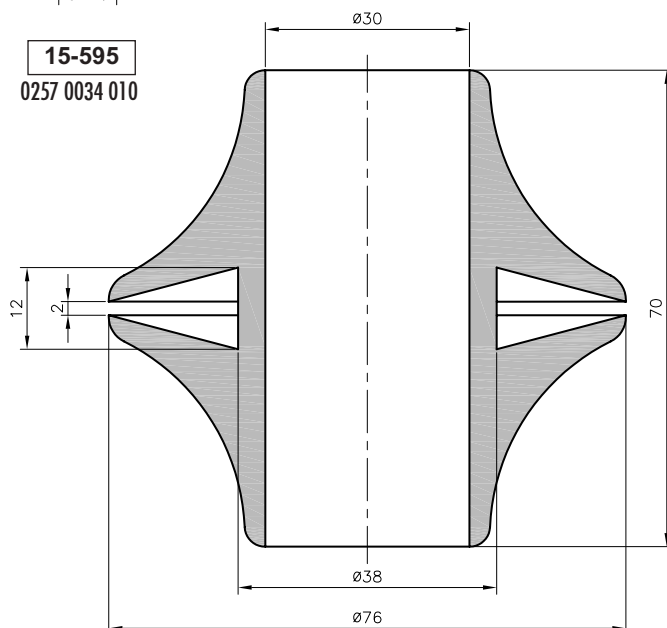
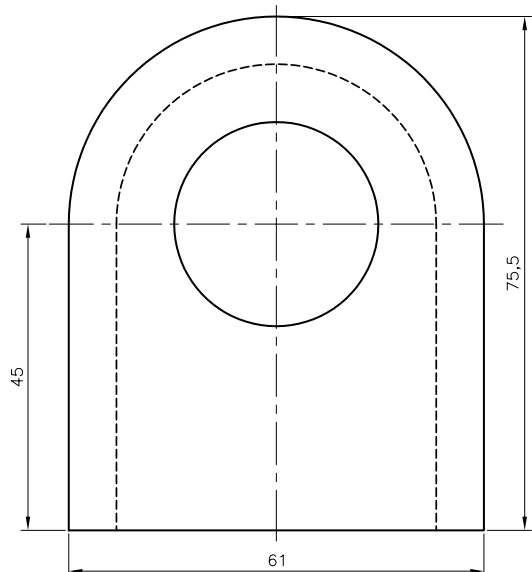
**15-010**  
0257 0020 010



**15-595**  
0257 0034 010



**15-644\*\***  
0257 0040 010



**15-309**  
0257 0009 010

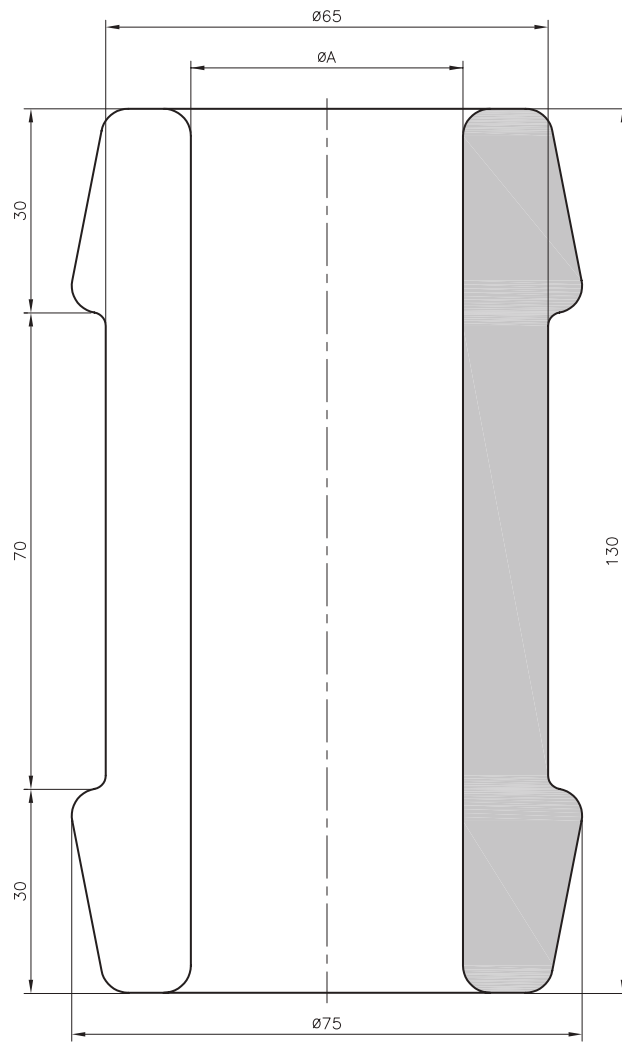
\*\* in EPDM rubber



**HELAVIA® semi-special grommets**  
in black polychloroprene rubber



HELAVIA®



type	Ø A mm	B mm
15-610	49	1,5
15-803	42	3
15-819	40	3
15-820	49	3

**15-610\***  
0257 0035 010

**15-803\***  
0257 0066 010

**15-819\***  
0257 0071 010

**15-820\***  
0257 0072 010

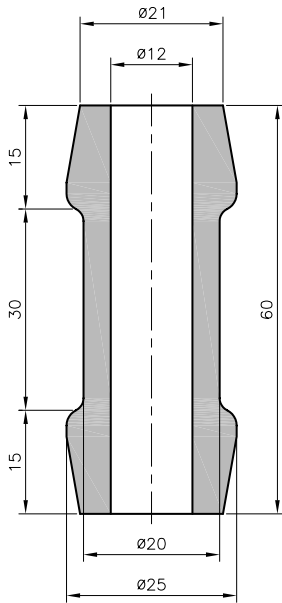
\* in Nitrile rubber



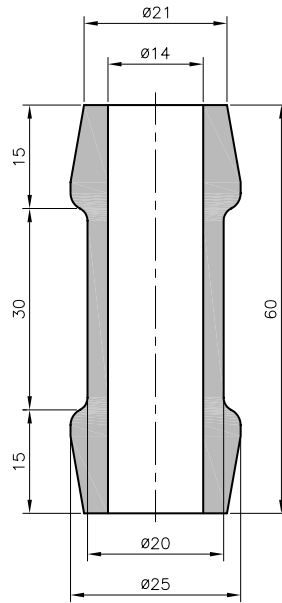
**HELAVIA® semi-special grommets**  
in black polychloroprene rubber



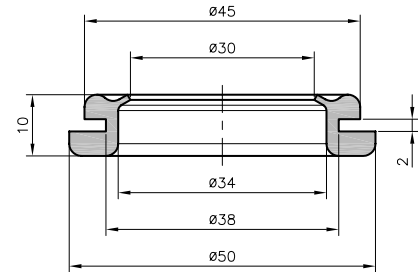
HELAVIA®



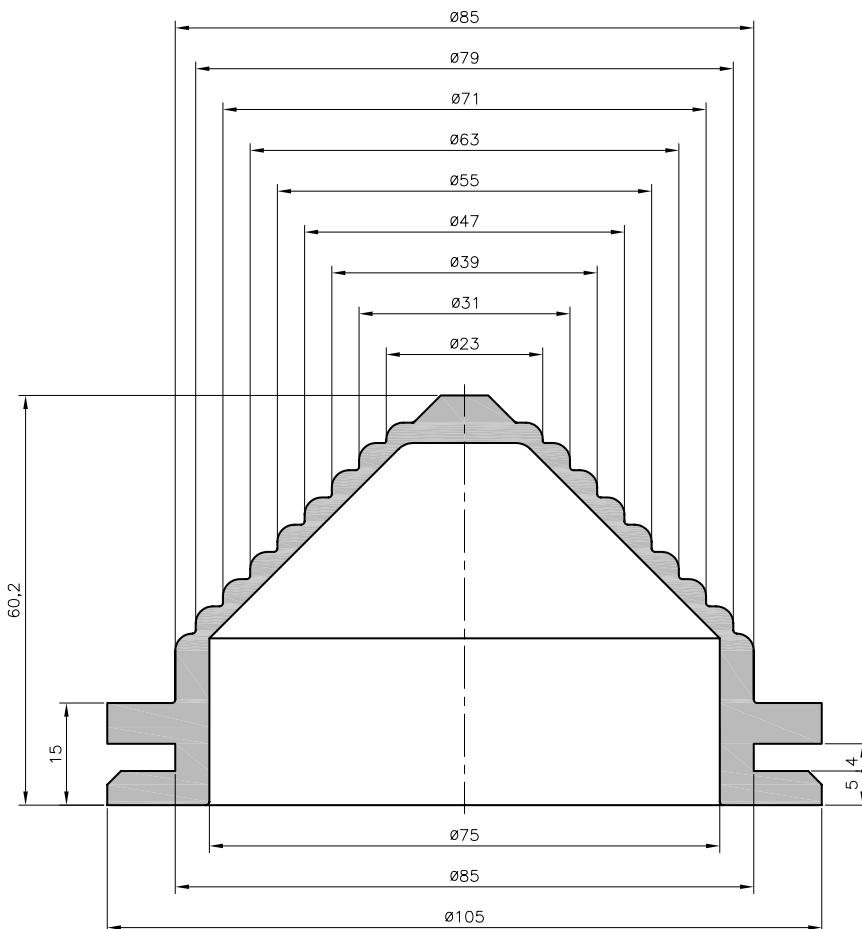
**15-539\***  
0257 0118 010



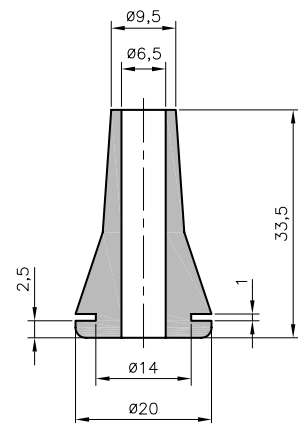
**15-580\***  
0257 0168 010



**15-808**  
0257 0067 010



**15-734**  
0257 0004 010



**15-742**  
0257 0063 010

\* in Nitrile rubber



# HELAVIA® bushes and strain relief in black polychloroprene rubber



HELAVIA®

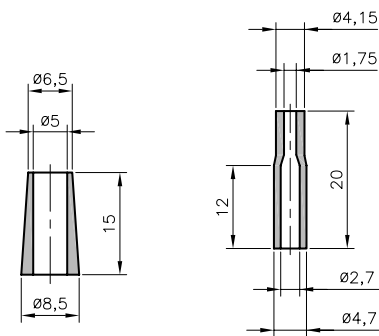


type	artide number		type	artide number		type	artide number	
15-009	0253 0001 010	100	15-403	0256 0003 010	100	15-693**	0253 0112 010	50
15-043	0253 0004 010	100	15-405	0256 0005 010	100	15-721	0253 0003 010	100
15-045	0253 0005 010	100	15-410	0253 0051 010	100	15-737	0253 0080 010	50
15-049	0253 0008 010	50	15-411	0253 0052 010	50	15-747	0253 0083 010	50
15-083	0253 0013 010	25	15-412	0253 0053 010	50	15-748	0253 0084 010	50
15-130	0253 0014 010	50	15-538	0253 0064 010	100	15-751	0253 0091 010	50
15-131	0253 0015 010	50	15-561	0253 0065 010	100	15-756	0253 0085 010	50
15-147	0253 0016 010	50	15-579	0253 0066 010	50	15-760	0253 0113 010	100
15-159	0253 0017 010	100	15-592	0253 0070 010	50	15-781	0253 0087 010	50
15-164	0253 0018 010	50	15-596*	0253 0071 010	100	15-806	0253 0114 010	100
15-169	0253 0019 010	100	15-602**	0253 0072 010	50	15-821	0253 0115 010	100
15-170	0253 0020 010	100	15-608	0253 0073 010	100	15-822	0253 0117 010	100
15-171	0253 0021 010	100	15-625	0252 0319 010	100	15-832	0253 0118 010	100
15-172	0253 0022 010	100	15-633	0253 0077 010	50	15-833	0253 0119 010	100
15-190	0256 0010 010	100	15-642	0253 0078 010	100	15-834	0253 0120 010	100
15-306	0253 0057 010	100	15-643	0253 0079 010	50	15-836	0253 0121 010	100
15-318	0253 0058 010	100	15-649	0253 0075 010	100			
15-320	0253 0059 010	25	15-651	0253 0076 010	100			
15-329**	0253 0060 010	25	15-672	0253 0092 010	50			
15-354	0253 0061 010	100	15-680	0253 0095 010	100			
15-380	0253 0062 010	100	15-691**	0253 0110 010	100			
15-383	0253 0056 010	100	15-692**	0253 0111 010	50			
15-391	0253 0063 010	100						
15-401	0256 0001 010	100						
15-402	0256 0002 010	100						

Clamps for 15-412

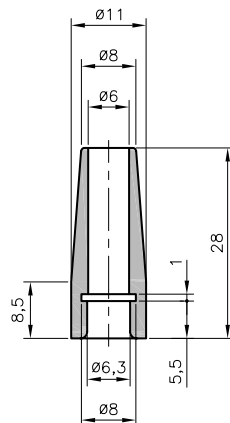
16-900 0684 0054 000 100

\* nitrile rubber \*\*EPDM rubber

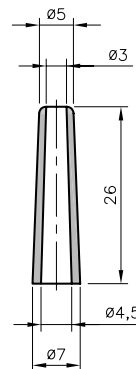


**15-009**  
0253 0001 010

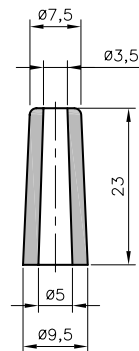
**15-190**  
0256 0010 010



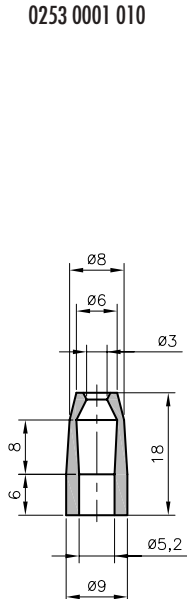
**15-318**  
0253 0058 010



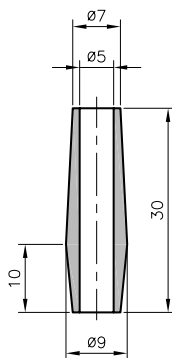
**15-401**  
0256 0001 010



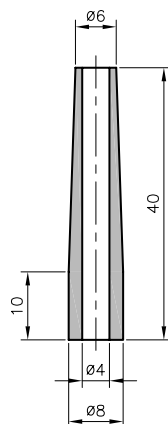
**15-402**  
0256 0002 010



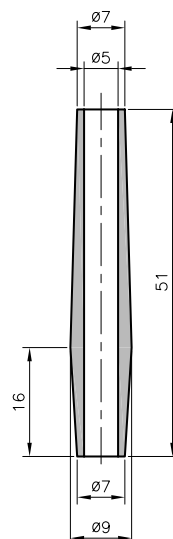
**15-403**  
0256 0003 010



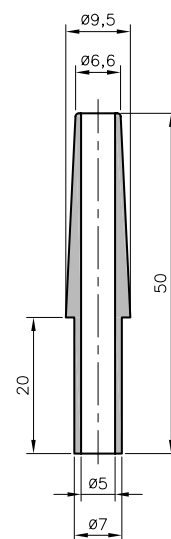
**15-405**  
0256 0005 010



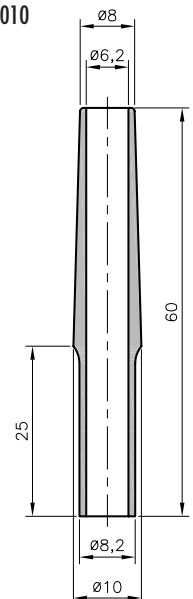
**15-680**  
0253 0095 010



**15-043**  
0253 0004 010



**15-380**  
0253 0062 010



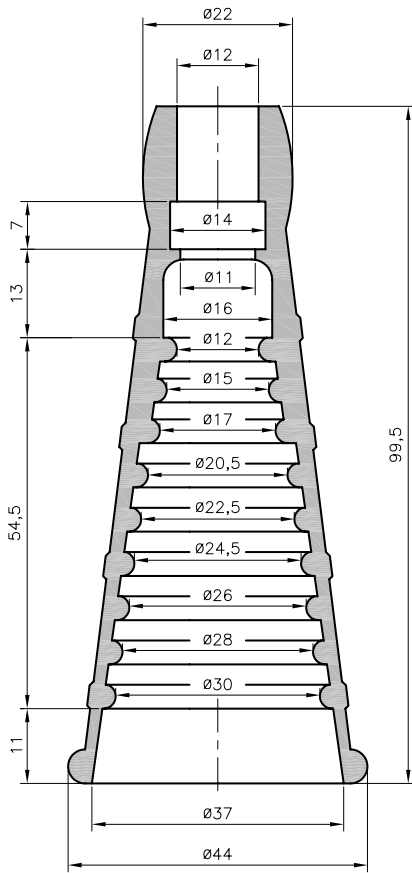
**15-391**  
0253 0063 010



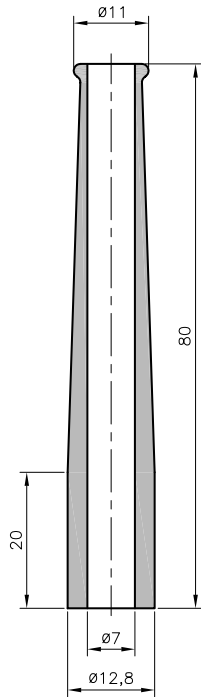
**HELAVIA® bushes and strain relief**  
in black polychloroprene rubber



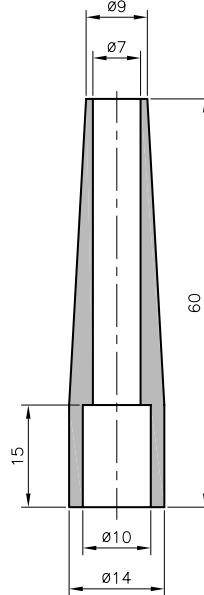
HELAVIA®



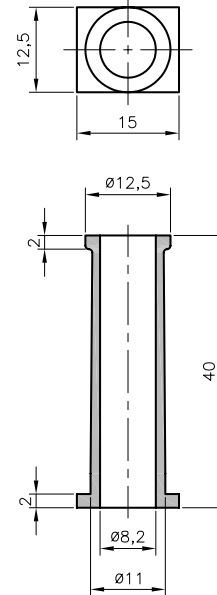
**15-329**  
0253 0060 010



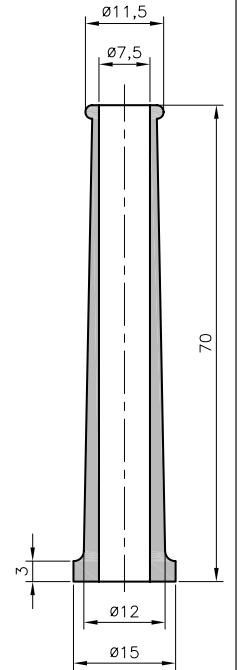
**15-164**  
0253 0018 010



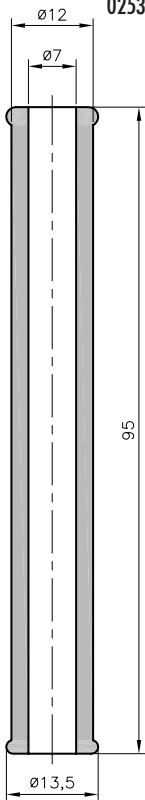
**15-045**  
0253 0005 010



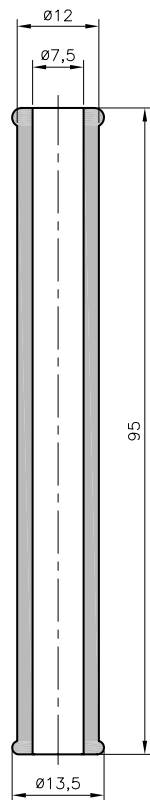
**15-642**  
0253 0078 010



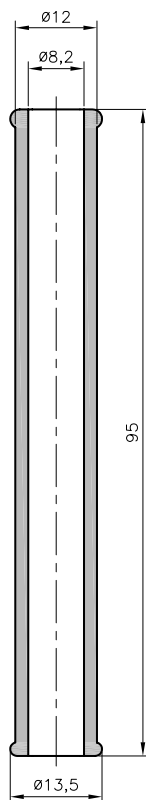
**15-411**  
0253 0052 010



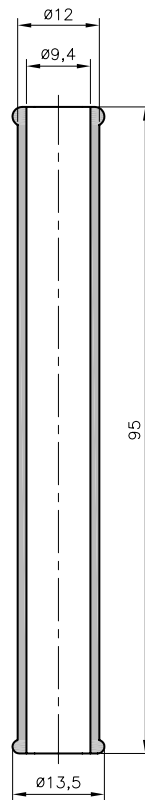
**15-169**  
0253 0019 010



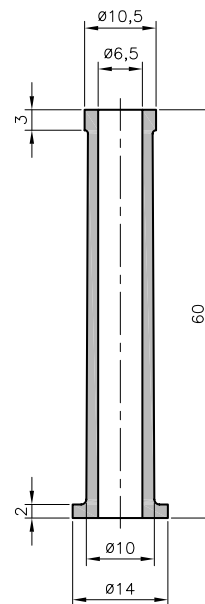
**15-170**  
0253 0020 010



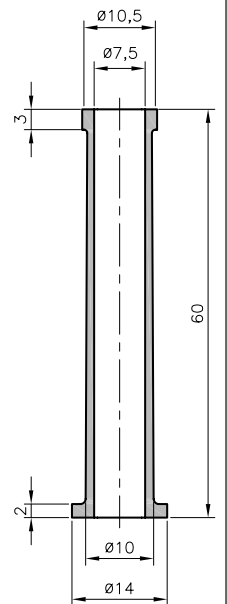
**15-171**  
0253 0021 010



**15-172**  
0253 0022 010



**15-538**  
0253 0064 010



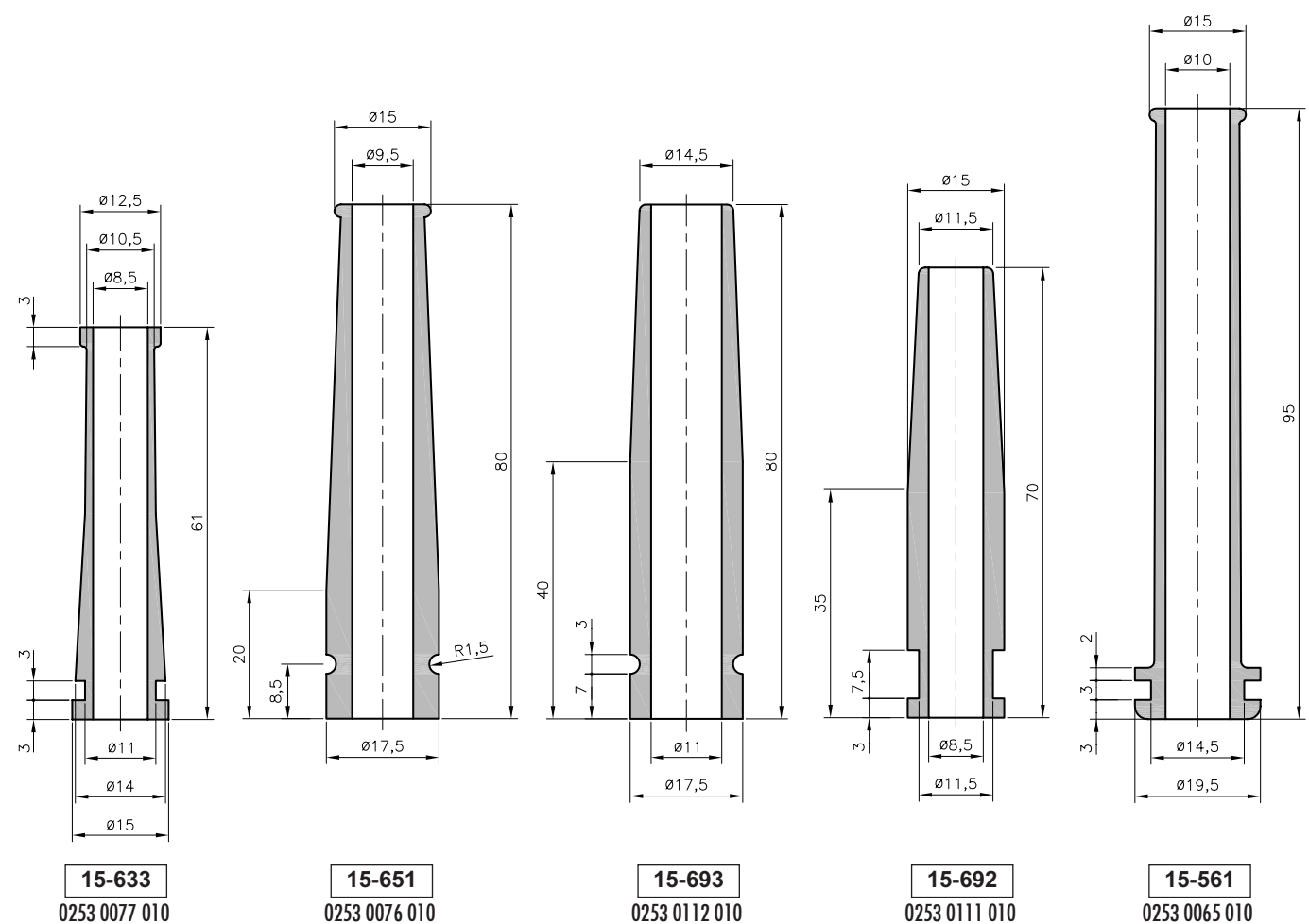
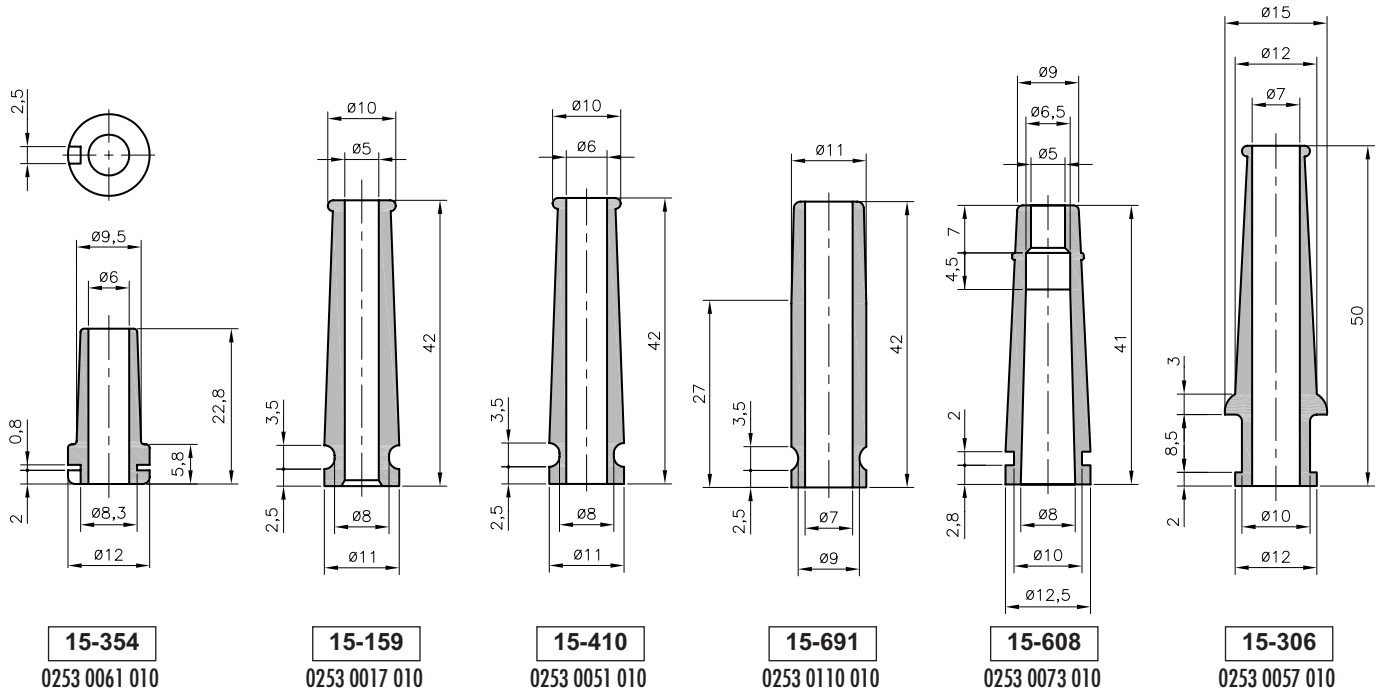
**15-579**  
0253 0066 010



**HELAVIA® bushes and strain relief**  
in black polychloroprene rubber



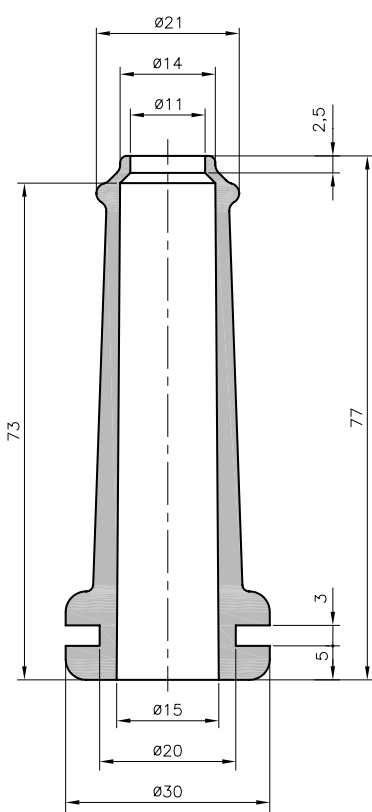
**HELAVIA®**



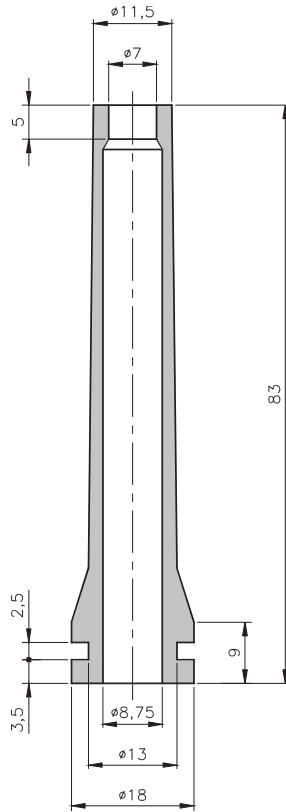
**HELAVIA® bushes and strain relief**  
in black polychloroprene rubber



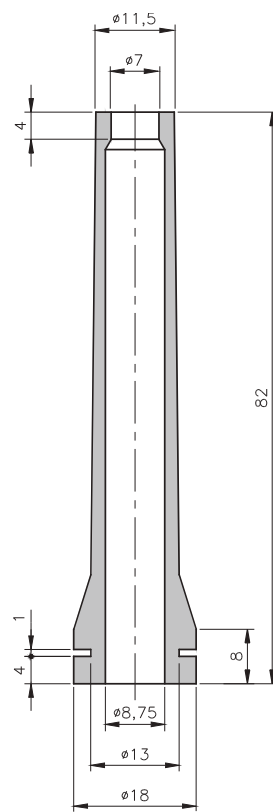
**HELAVIA®**



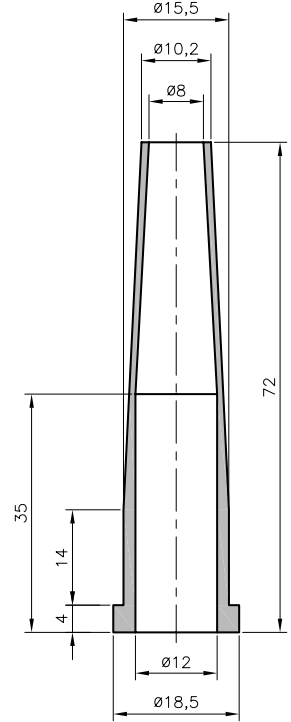
**15-049**  
0253 0008 010



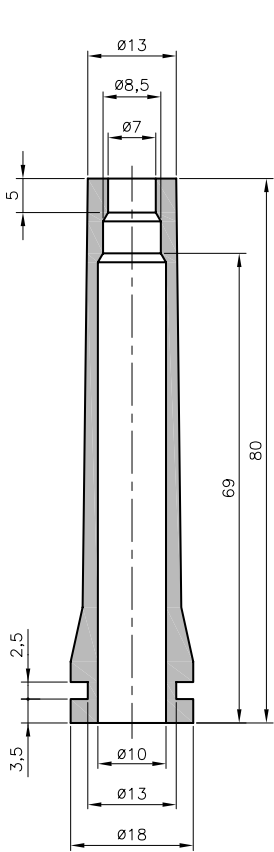
**15-131**  
0253 0015 010



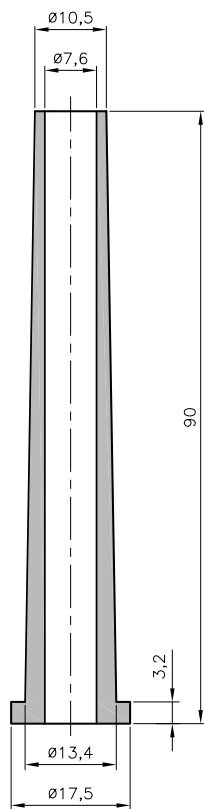
**15-672**  
0253 0092 010



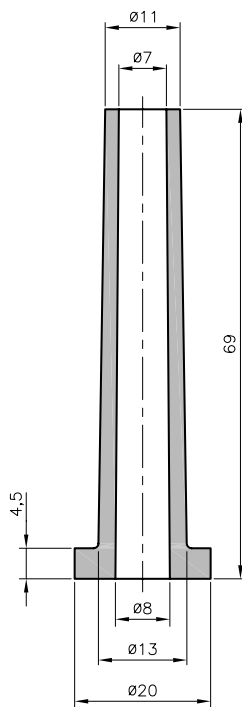
**15-147**  
0253 0016 010



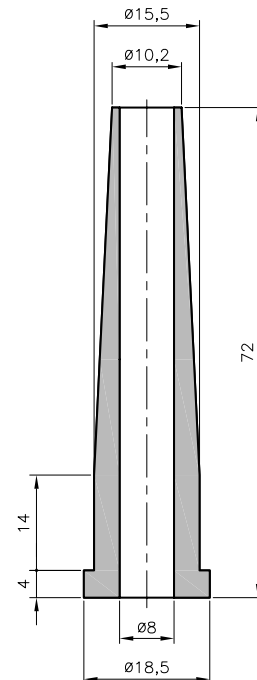
**15-643**  
0253 0079 010



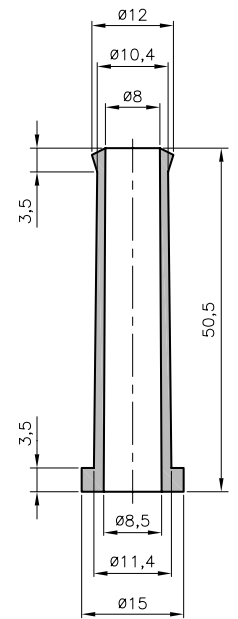
**15-602**  
0253 0072 010



**15-592**  
0253 0070 010



**15-130**  
0253 0014 010



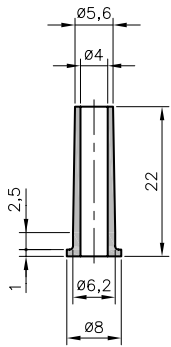
**15-383**  
0253 0056 010



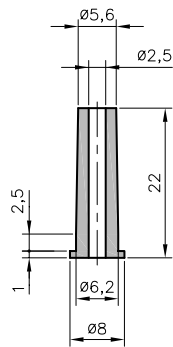
**HELAVIA® bushes and strain relief**  
in black polychloroprene rubber



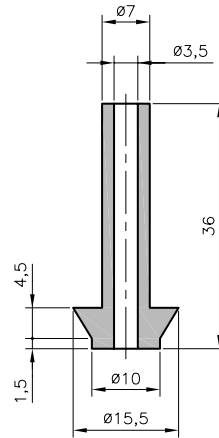
HELAVIA®



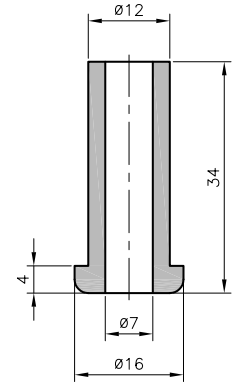
**15-649**  
0253 0075 010



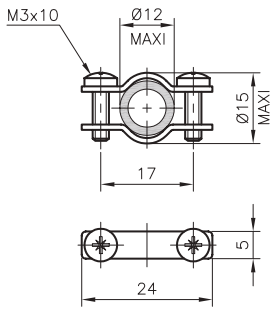
**15-760**  
0253 0113 010



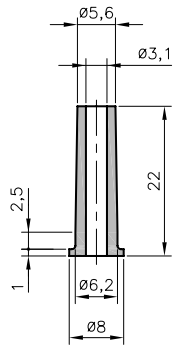
**15-596**  
0253 0071 010



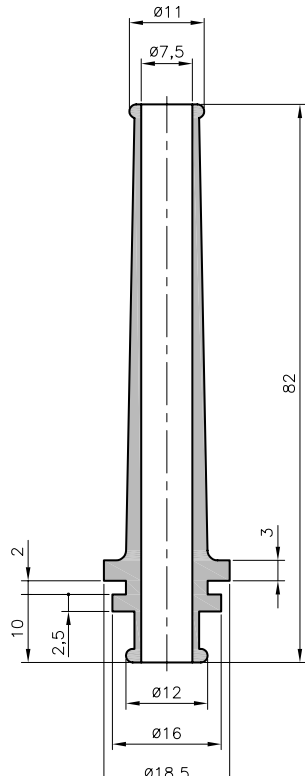
**15-625**  
0252 0319 010



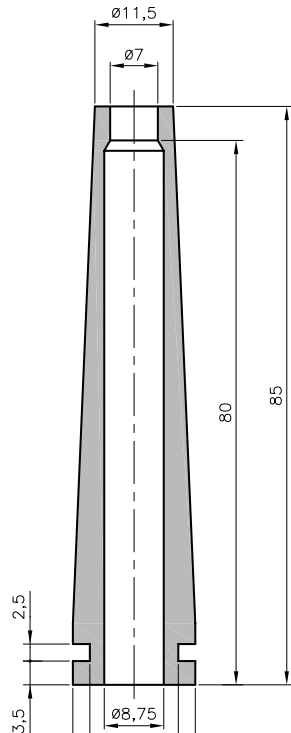
**16-900**  
0684 0054 000



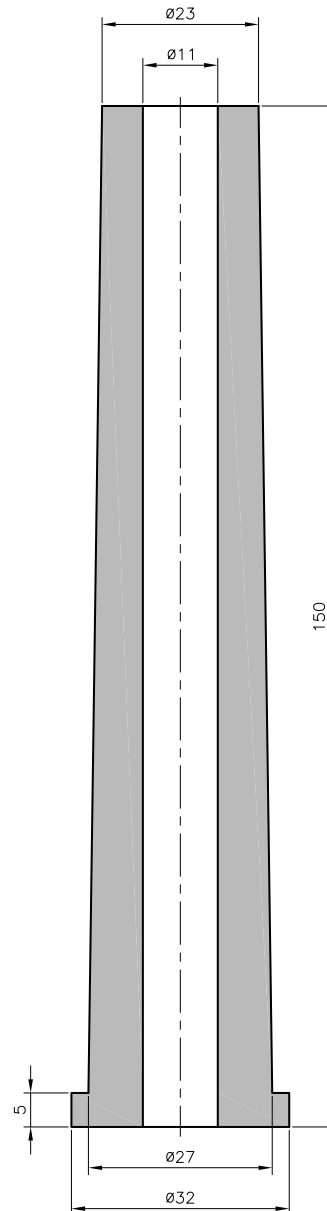
**15-721**  
0253 0003 010



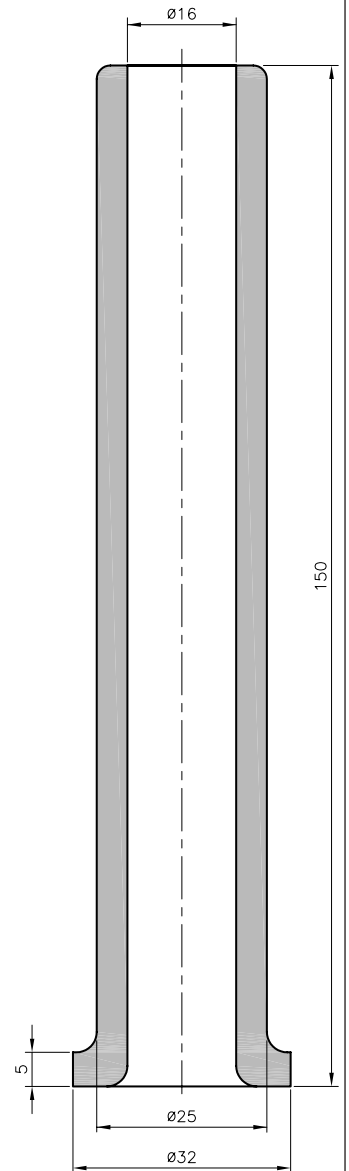
**15-412**  
0253 0053 010



**15-751**  
0253 0091 010



**15-320**  
0253 0059 010



**15-083**  
0253 0013 010

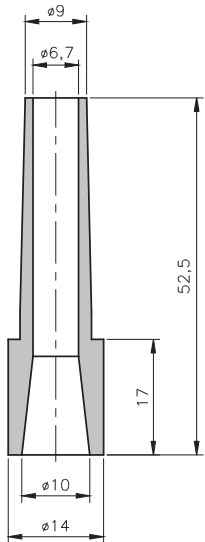




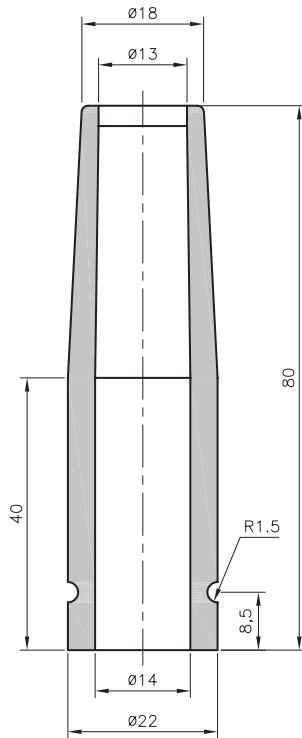
**HELAVIA® bushes and strain relief**  
in black polychloroprene rubber



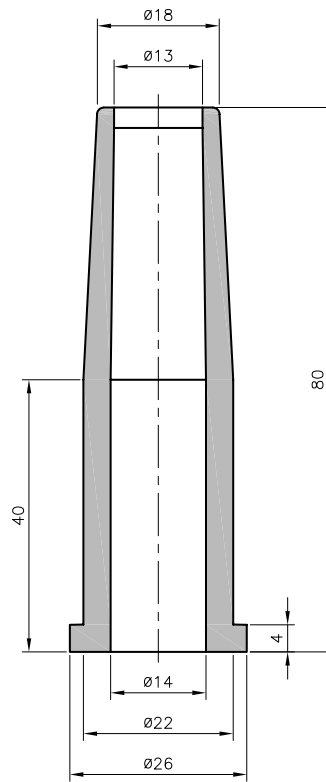
HELAVIA®



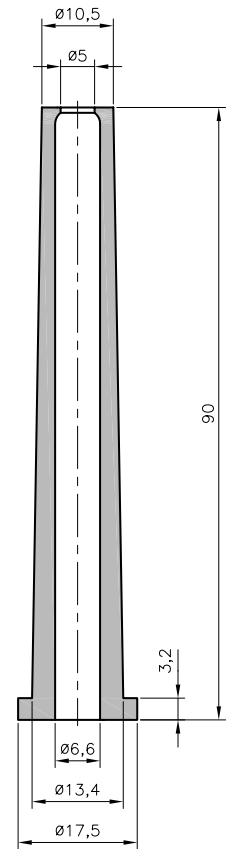
**15-822**  
0253 0117 010



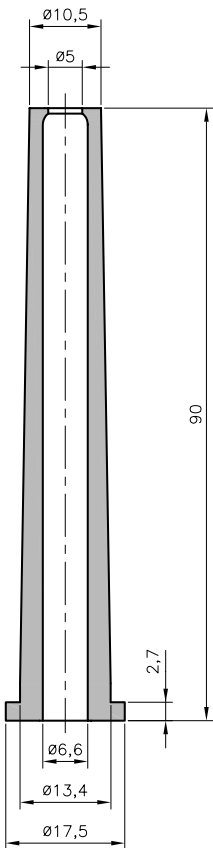
**15-747**  
0253 0083 010



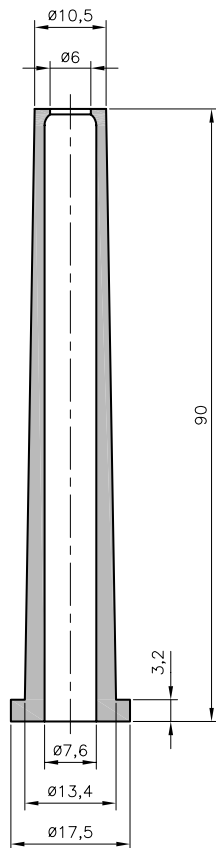
**15-748**  
0253 0084 010



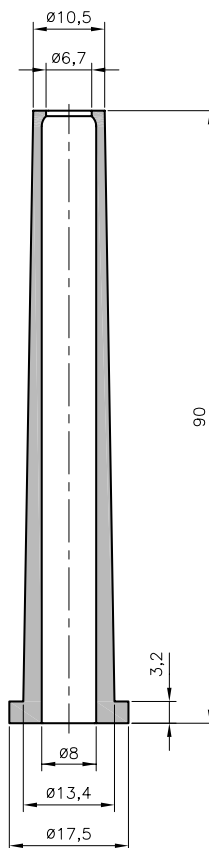
**15-756**  
0253 0085 010



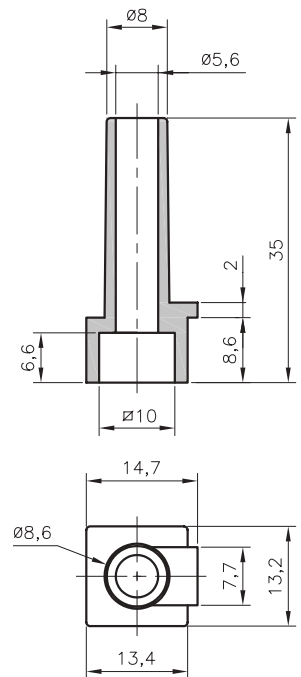
**15-781**  
0253 0087 010



**15-737**  
0253 0080 010



**15-806**  
0253 0114 010



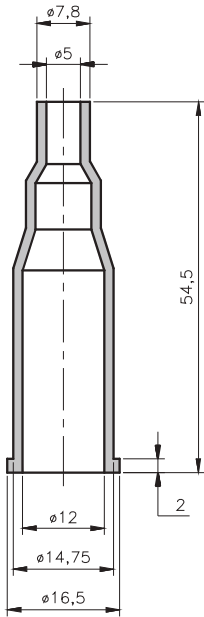
**15-821**  
0253 0115 010



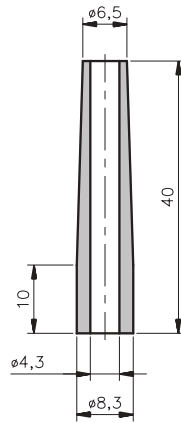
**HELAVIA® bushes and strain relief**  
in black polychloroprene rubber



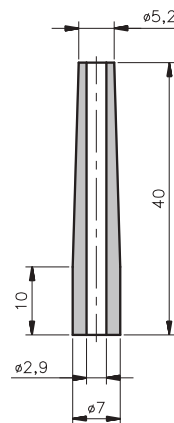
HELAVIA®



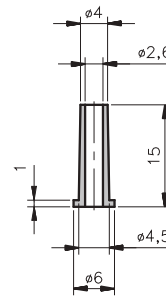
**15-832**  
0253 0118 010



**15-833**  
0253 0119 010



**15-834**  
0253 0120 010



**15-836**  
0253 0121 010

# HELAVIA® moulded caps in black polychloroprene rubber



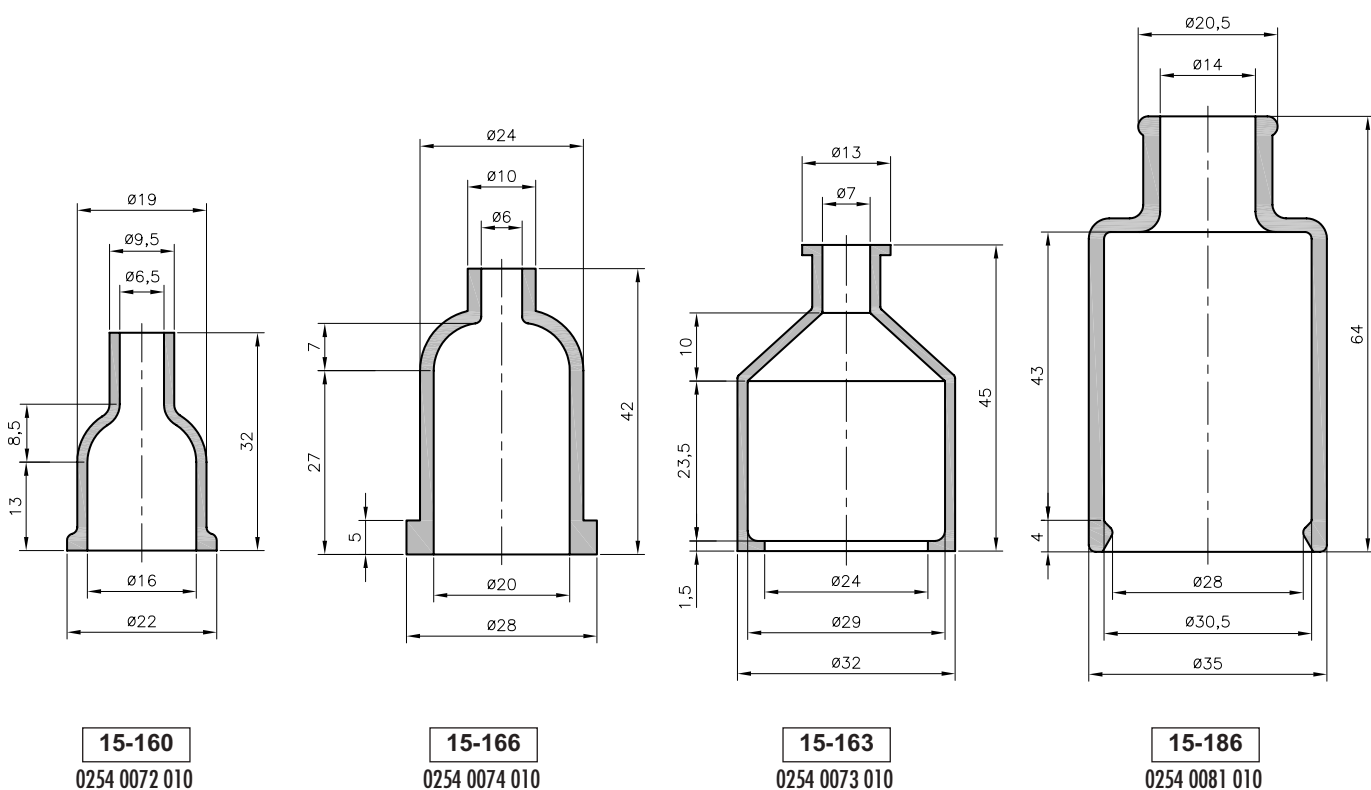
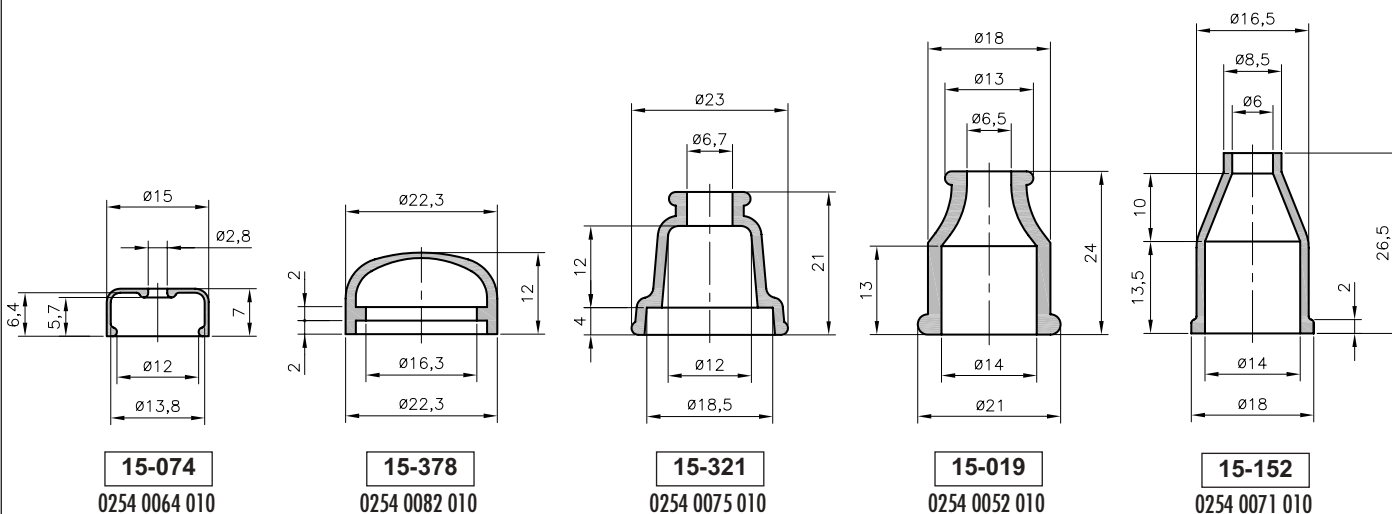
HELAVIA®



type	article number		type	article number		type	article number	
15 - 005	0254 0006 010	50	15 - 087	0254 0060 010	50	15 - 378**	0254 0082 010	100
15 - 019	0254 0052 010	100	15 - 152	0254 0071 010	100	15 - 634	0254 0085 010	25
15 - 024	0254 0053 010	25	15 - 160	0254 0072 010	100	15 - 652	0254 0089 010	100
15 - 028	0254 0078 010	25	15 - 163	0254 0073 010	50	15 - 683	0254 0092 010	25
15 - 029	0254 0055 010	50	15 - 166	0254 0074 010	50	15 - 684	0254 0093 010	25
15 - 074	0254 0064 010	100	15 - 186*	0254 0081 010	25	15 - 696	0254 0095 010	50
15 - 086	0254 0059 010	25	15 - 321	0254 0075 010	100	15 - 749	0254 0097 010	25

\* Nitrile rubber

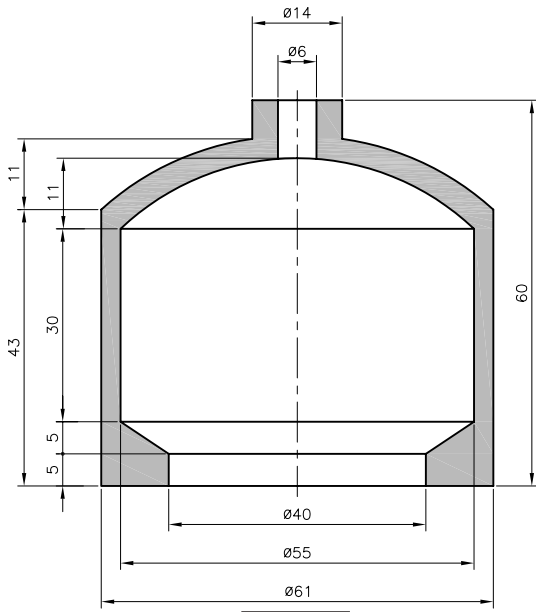
\*\* EPDM rubber



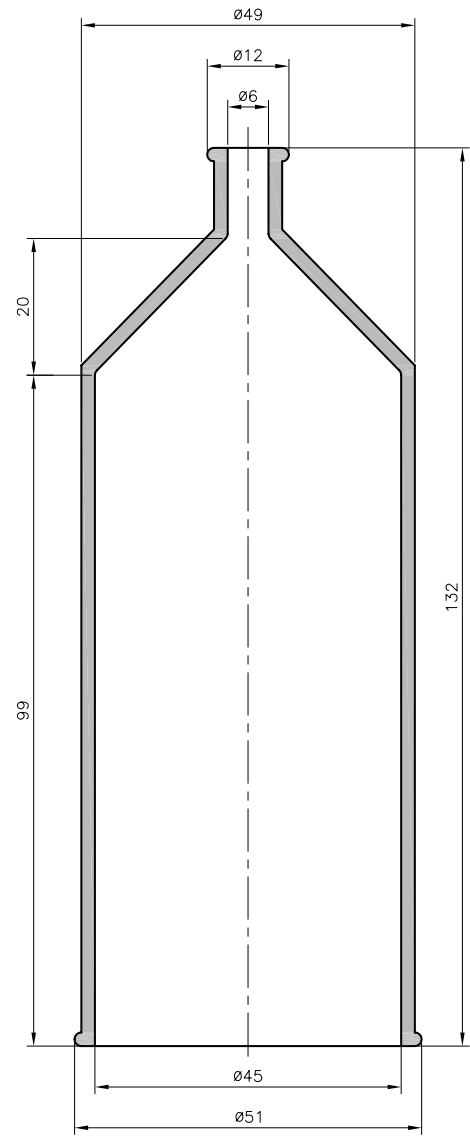
**HELAVIA® moulded caps  
in black polychloroprene rubber**



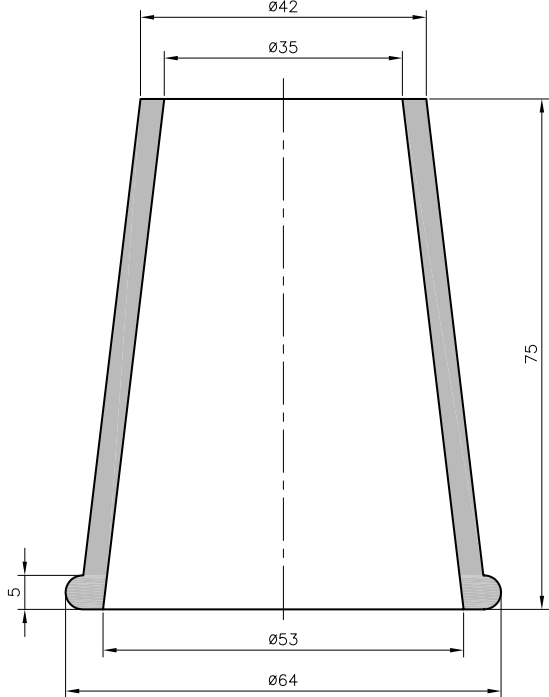
**HELAVIA®**



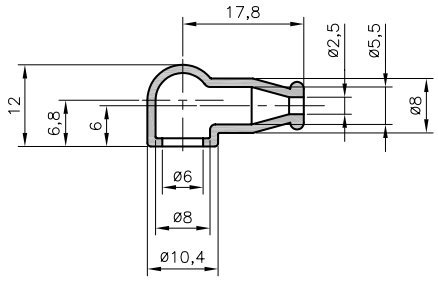
**15-028**  
0254 0078 010



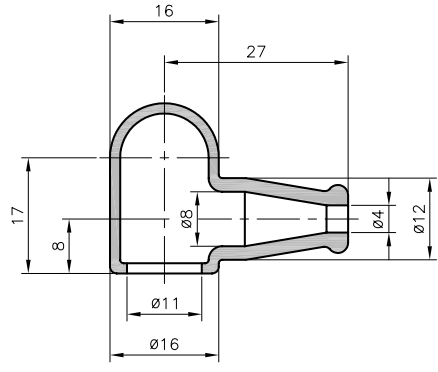
**15-634**  
0254 0085 010



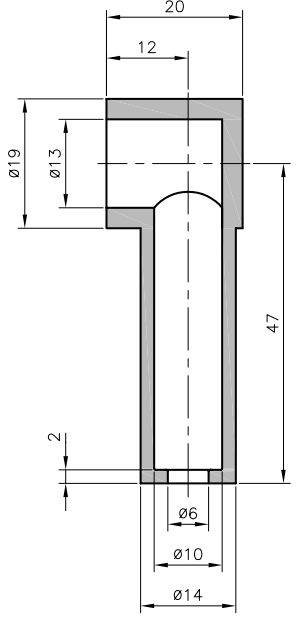
**15-024**  
0254 0053 010



**15-652**  
0254 0089 010



**15-029**  
0254 0055 010



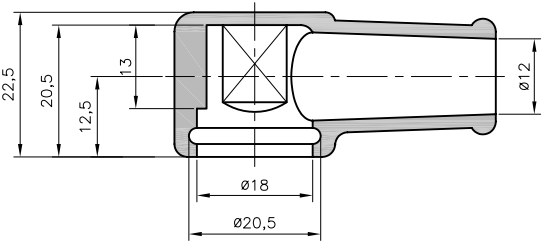
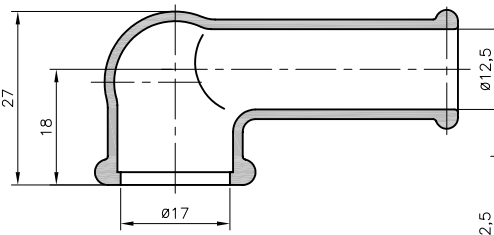
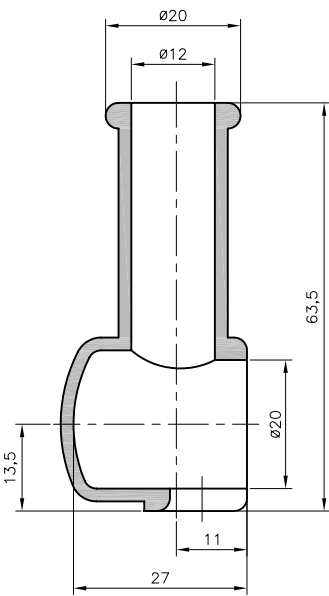
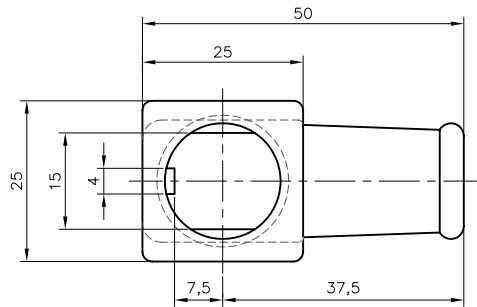
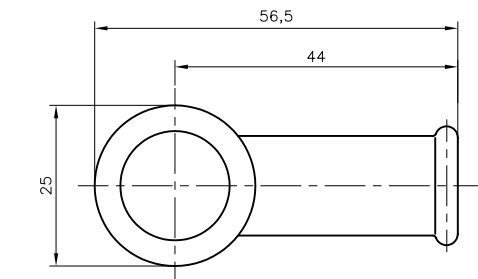
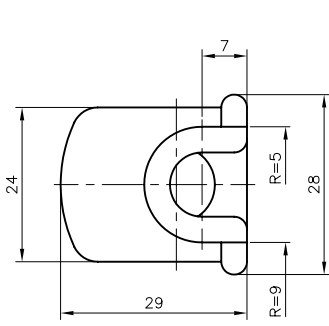
**15-005**  
0254 0006 010



**HELAVIA® moulded caps  
in black polychloroprene rubber**



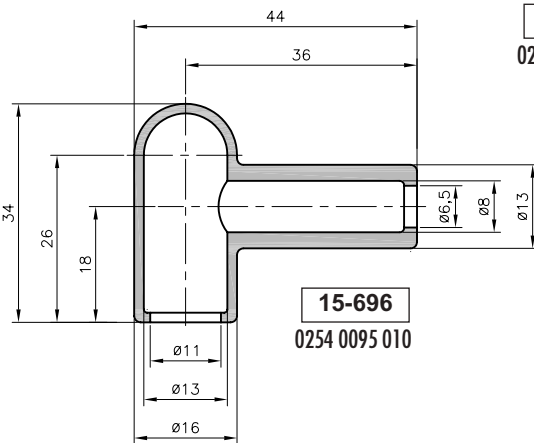
**HELAVIA®**



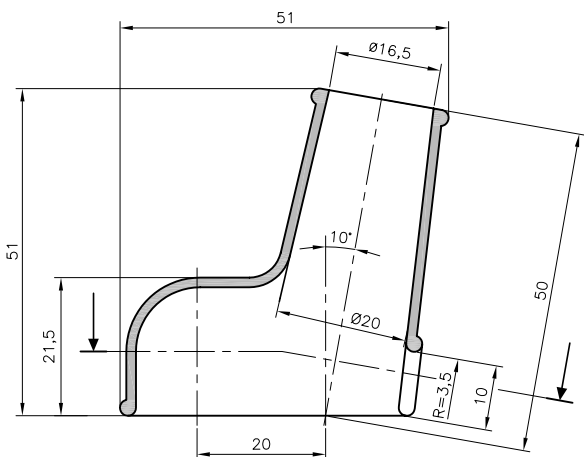
**15-749**  
0254 0097 010

**15-683**  
0254 0092 010

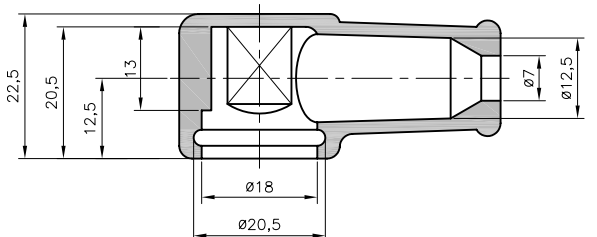
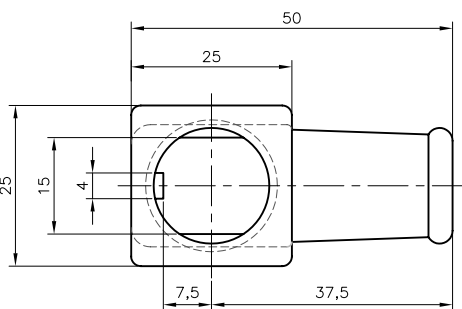
**15-086**  
0254 0059 010



**15-696**  
0254 0095 010



**15-087**  
0254 0060 010



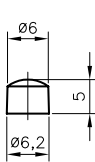
**15-684**  
0254 0093 010



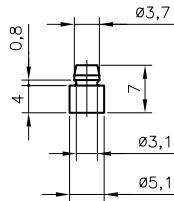


type	article number		type	article number		type	article number	
15-018	0254 0001 010	100	15-151	0254 0021 010	100	15-560	0254 0043 010	100
15-020	0254 0002 010	100	15-156	0254 0022 010	100	15-605	0254 0084 010	100
15-021	0254 0024 010	100	15-199*	0254 0032 010	100	15-615	0254 0044 010	100
15-023	0254 0003 010	100	15-307	0254 0034 010	100	15-630**	0254 0049 010	100
15-026	0254 0004 010	100	15-326	0254 0036 010	100	15-650	0254 0050 010	100
15-051	0254 0008 010	100	15-327	0254 0065 010	100	15-657	0254 0035 010	100
15-054	0254 0011 010	100	15-344	0254 0037 010	100	15-685	0254 0029 010	100
15-068	0254 0027 010	100	15-360	0254 0038 010	100	15-717	0254 0066 010	100
15-089	0254 0012 010	100	15-385	0254 0039 010	100	15-718	0254 0067 010	100
15-092	0254 0061 010	100	15-386	0254 0040 010	100	15-753	0254 0124 010	100
15-142	0254 0013 010	100	15-388	0254 0041 010	100	15-793*	0254 0126 010	100
15-145	0254 0014 010	100	15-520	0254 0042 010	100	15-827	0254 0127 010	100
15-149	0254 0015 010	100	15-533	0254 0083 010	100			

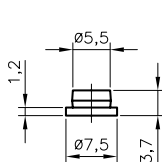
\* Nitrile rubber  
\*\* EPDM rubber



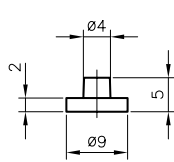
**15-021**  
0254 0024 010



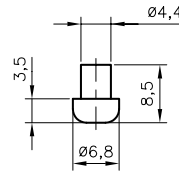
**15-199**  
0254 0032 010



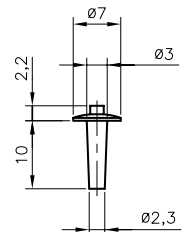
**15-657**  
0254 0035 010



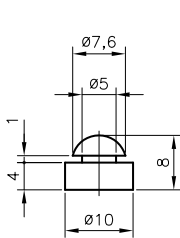
**15-560**  
0254 0043 010



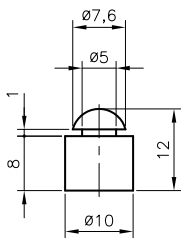
**15-388**  
0254 0041 010



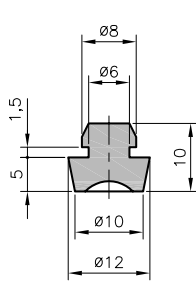
**15-793**  
0254 0126 010



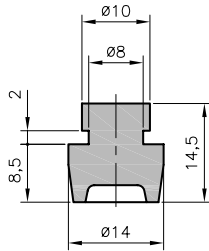
**15-386**  
0254 0040 010



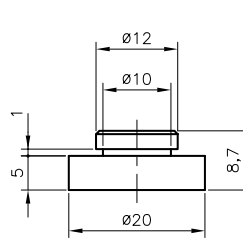
**15-385**  
0254 0039 010



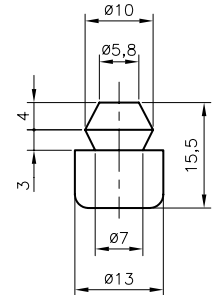
**15-018**  
0254 0001 010



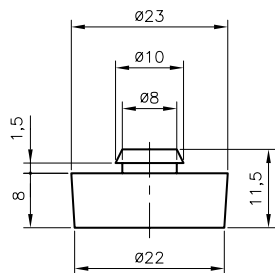
**15-142**  
0254 0013 010



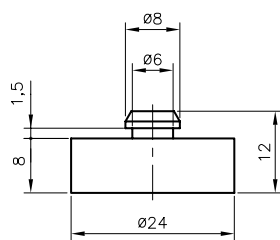
**15-520**  
0254 0042 010



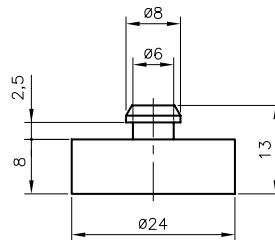
**15-615**  
0254 0044 010



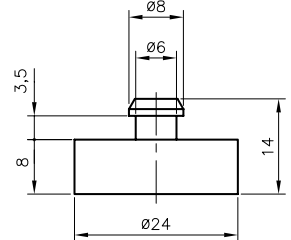
**15-344**  
0254 0037 010



**15-717**  
0254 0066 010

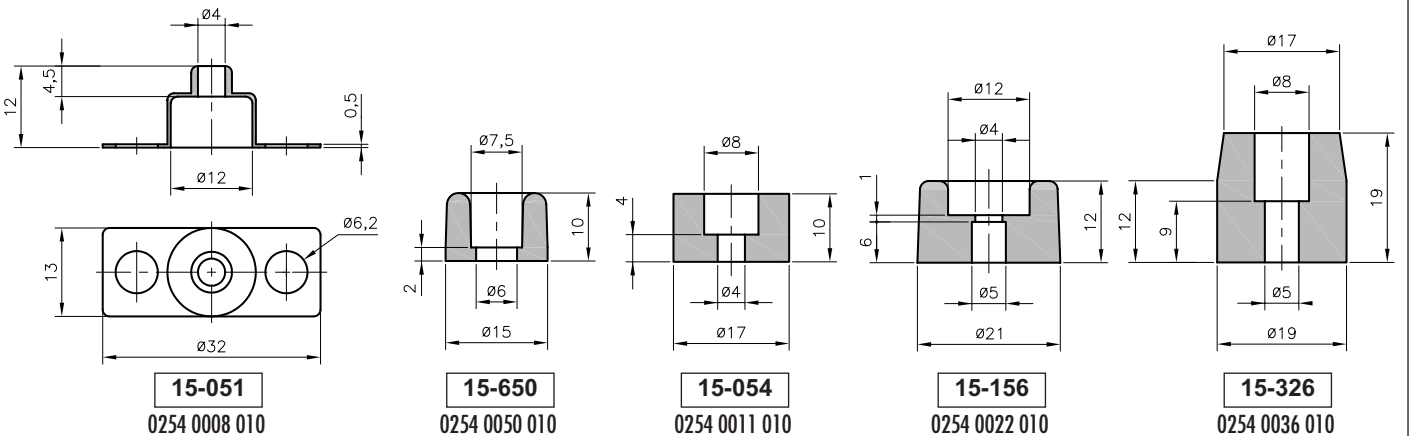
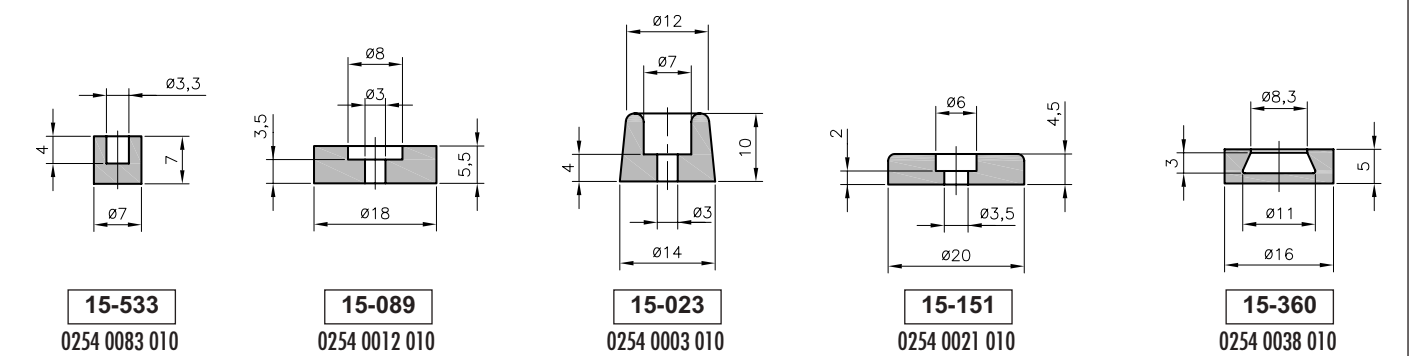
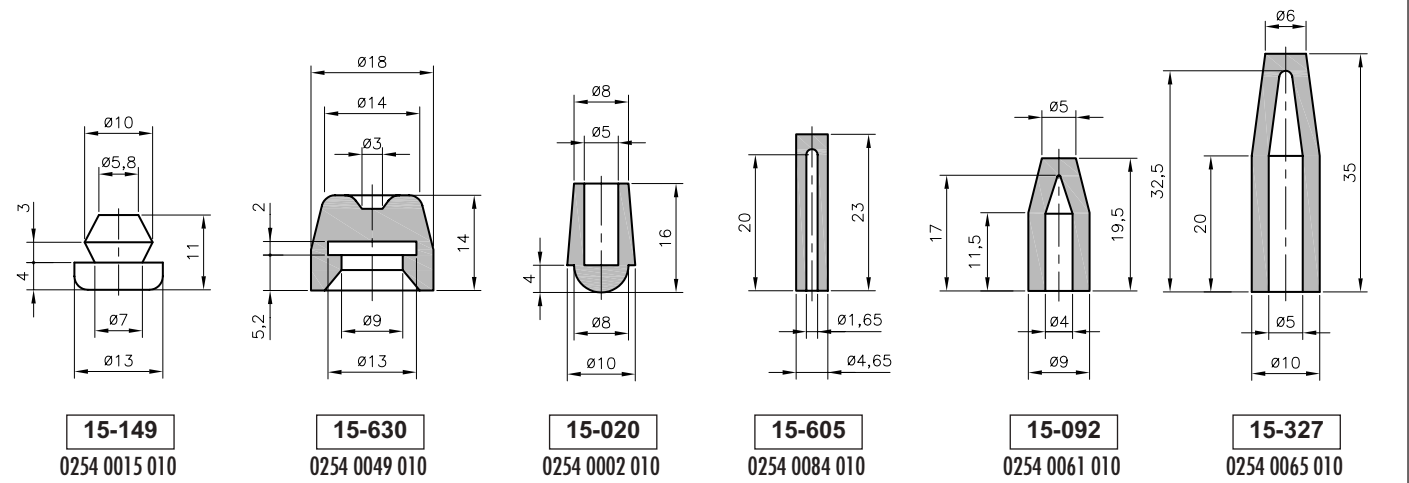
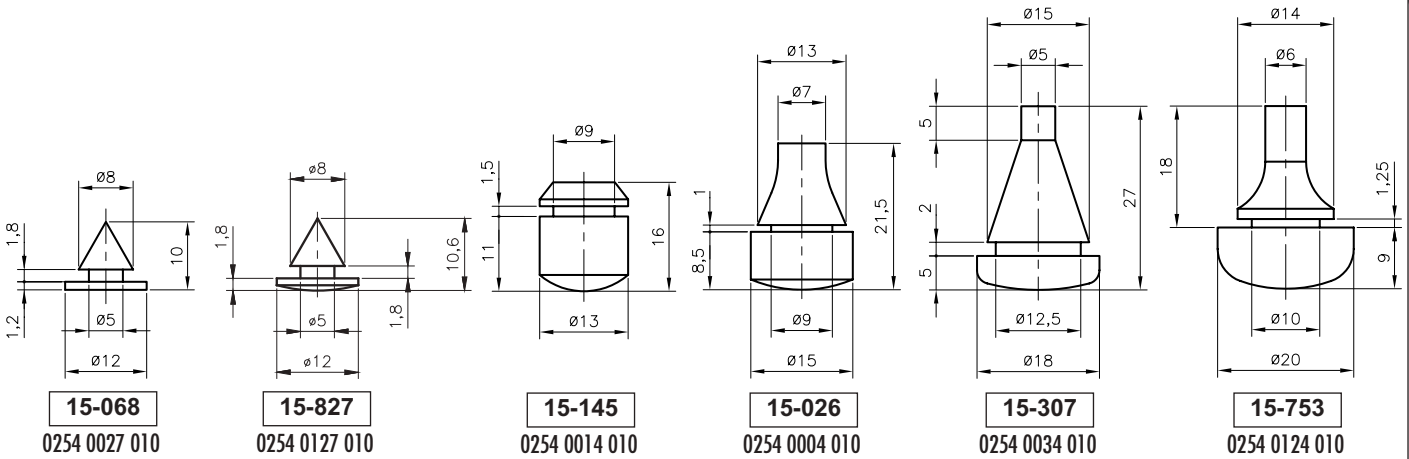


**15-718**  
0254 0067 010



**15-685**  
0254 0029 010





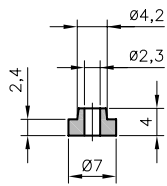
# HELAVIA® flanged and bushed grommets in black polychloroprene rubber



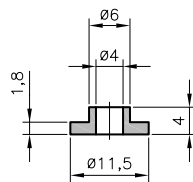
HELAVIA®  
-30 to +90°C



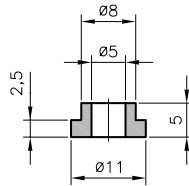
type	artide number		type	artide number		type	artide number	
15-001	0253 0002 010	100	15-162	0253 0032 010	100	15-653	0257 0043 010	100
15-003	0254 0023 010	100	15-393	0257 0013 010	100	15-654	0257 0044 010	100
15-004	0254 0045 010	100	15-395	0257 0014 010	100	15-664	0257 0050 010	100
15-038	0254 0025 010	100	15-398	0257 0015 010	100	15-665	0257 0051 010	100
15-058	0254 0026 010	100	15-399	0257 0016 010	100	15-678	0254 0088 010	50
15-060	0254 0046 010	100	15-537	0254 0087 010	100	15-716	0254 0005 010	100



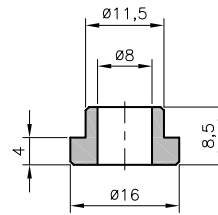
**15-537**  
0254 0087 010



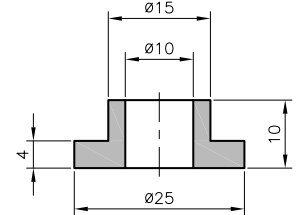
**15-058**  
0254 0026 010



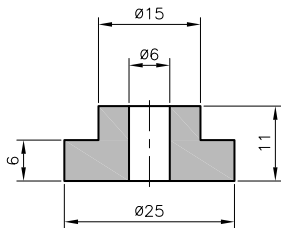
**15-398**  
0257 0015 010



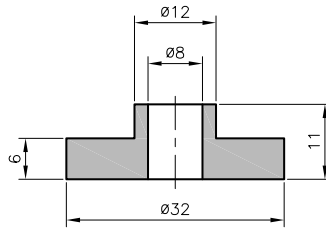
**15-399**  
0257 0016 010



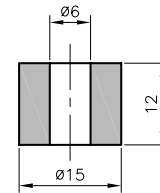
**15-395**  
0257 0014 010



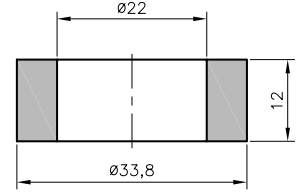
**15-003**  
0254 0023 010



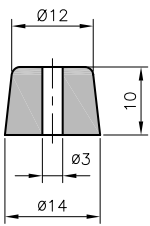
**15-038**  
0254 0025 010



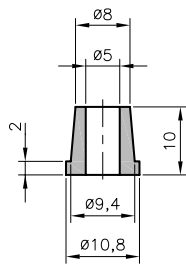
**15-004**  
0254 0045 010



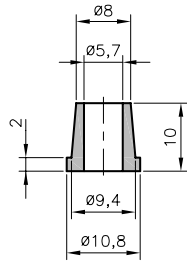
**15-678**  
0254 0088 010



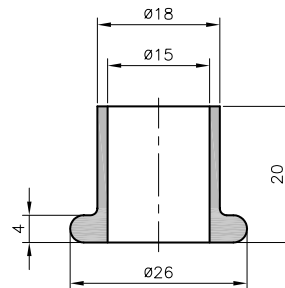
**15-716**  
0254 0005 010



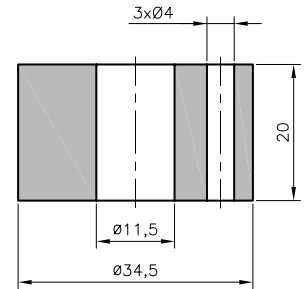
**15-664**  
0257 0050 010



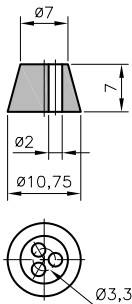
**15-665**  
0257 0051 010



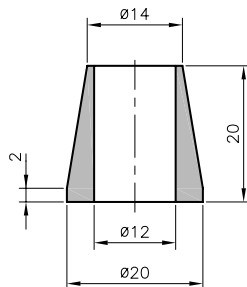
**15-393**  
0257 0013 010



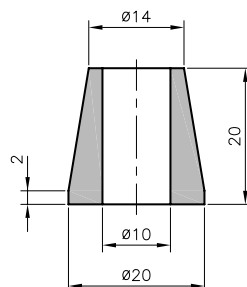
**15-001**  
0253 0002 010



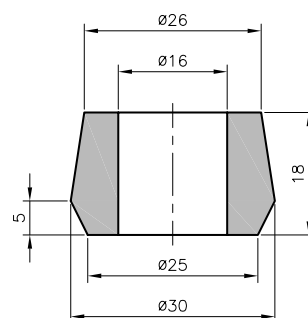
**15-162**  
0253 0032 010



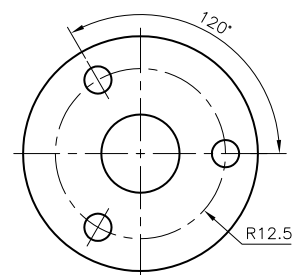
**15-654**  
0257 0044 010



**15-653**  
0257 0043 010



**15-060**  
0254 0046 010





## HELAVIA® moulded parts to samples in polychloroprene rubber (Neoprene)



HELAVIA®



SES-STERLING specializes mainly in Polychloroprene (Neoprene / Baypren). For special needs, other qualities can be produced (e.g. EPDM, NBR or Silicone).

SES-STERLING always seeks to extend its programme of mouldings for the electrical industry. Many new designs are added each year where we have the customer's cooperation and where a small contribution is made by the original customer towards the tool costs.

All sales and manufacturing rights remain the property of the SES-STERLING. SES-STERLING executes all the orders it receives for new items, without research property rights filed. The manufacture and sale of new items are therefore the unique responsibility of the Company who places the order.





type	article number	page	type	article number	page	type	article number	page
15-001	2530002010	A20/50-01	15-204	2590023010	A20/5-03	15-630	2540049010	A20/40-01
15-003	2540023010	A20/50-01	15-205	2590024010	A20/5-03	15-633	2530077010	A20/20-01
15-004	2540045010	A20/50-01	15-206	2590019010	A20/5-03	15-634	2540085010	A20/30-01
15-005	2540006010	A20/30-01	15-306	2530057010	A20/20-01	15-642	2530078010	A20/20-01
15-009	2530001010	A20/20-01	15-307	2540034010	A20/40-01	15-643	2530079010	A20/20-01
15-010	2570020010	A20/8-01	15-309	2570009010	A20/8-01	15-644	2570040010	A20/8-01
15-018	2540001010	A20/40-01	15-318	2530058010	A20/20-01	15-645	2570041010	A20/8-01
15-019	2540052010	A20/30-01	15-320	2530059010	A20/20-01	15-649	2530075010	A20/20-01
15-020	2540002010	A20/40-01	15-321	2540075010	A20/30-01	15-650	2540050010	A20/40-01
15-021	2540024010	A20/40-01	15-326	2540066010	A20/40-01	15-651	2530076010	A20/20-01
15-023	2540003010	A20/40-01	15-327	2540065010	A20/40-01	15-652	2540089010	A20/30-01
15-024	2540053010	A20/30-01	15-329	2530060010	A20/20-01	15-653	2570043010	A20/50-01
15-026	2540004010	A20/40-01	15-344	2540037010	A20/40-01	15-654	2570044010	A20/50-01
15-028	2540078010	A20/30-01	15-354	2530061010	A20/20-01	15-657	2540035010	A20/40-01
15-029	2540055010	A20/30-01	15-360	2540038010	A20/40-01	15-664	2570050010	A20/50-01
15-033	2570001010	A20/8-01	15-377	2570012010	A20/8-01	15-665	2570051010	A20/50-01
15-038	2540025010	A20/50-01	15-378	2540082010	A20/30-01	15-672	2530092010	A20/20-01
15-043	2530004010	A20/20-01	15-380	2530062010	A20/20-01	15-678	2540088010	A20/50-01
15-045	2530005010	A20/20-01	15-383	2530056010	A20/20-01	15-679	2570061010	A20/8-01
15-049	2530008010	A20/20-01	15-385	2540039010	A20/40-01	15-680	2530095010	A20/20-01
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15-076	2570003010	A20/8-01	15-398	2570015010	A20/50-01	15-693	2530112010	A20/20-01
15-083	2530013010	A20/20-01	15-399	2570016010	A20/50-01	15-696	2540095010	A20/30-01
15-086	2540059010	A20/30-01	15-401	2560001010	A20/20-01	15-716	2540005010	A20/50-01
15-087	2540060010	A20/30-01	15-402	2560002010	A20/20-01	15-717	2540066010	A20/40-01
15-089	2540012010	A20/40-01	15-403	2560003010	A20/20-01	15-718	2540067010	A20/40-01
15-092	2540061010	A20/40-01	15-405	2560005010	A20/20-01	15-721	2530003010	A20/20-01
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15-130	2530014010	A20/20-01	15-411	2530052010	A20/20-01	15-737	2530080010	A20/20-01
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15-145	2540014010	A20/40-01	15-520	2540042010	A20/40-01	15-747	2530083010	A20/20-01
15-147	2530016010	A20/20-01	15-533	2540083010	A20/40-01	15-748	2530084010	A20/20-01
15-149	2540015010	A20/40-01	15-537	2540087010	A20/50-01	15-749	2540097010	A20/30-01
15-151	2540021010	A20/40-01	15-538	2530064010	A20/20-01	15-751	2530091010	A20/20-01
15-152	2540071010	A20/30-01	15-539	2570118010	A20/8-01	15-753	2540124010	A20/40-01
15-156	2540022010	A20/40-01	15-560	2540043010	A20/40-01	15-756	2530085010	A20/20-01
15-159	2530017010	A20/20-01	15-561	2530065010	A20/20-01	15-760	2530113010	A20/20-01
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15-162	2530032010	A20/50-01	15-579	2530066010	A20/20-01	15-793	2540126010	A20/40-01
15-163	2540073010	A20/30-01	15-580	2570168010	A20/8-01	15-803	2570066010	A20/8-03
15-164	2530018010	A20/20-01	15-592	2530070010	A20/20-01	15-806	2530114010	A20/20-01
15-166	2540074010	A20/30-01	15-595	2570034010	A20/8-01	15-808	2570067010	A20/8-01
15-169	2530019010	A20/20-01	15-596	2530071010	A20/20-01	15-819	2570071010	A20/8-03
15-170	2530020010	A20/20-01	15-602	2530072010	A20/20-01	15-820	2570072010	A20/8-03
15-171	2530021010	A20/20-01	15-605	2540084010	A20/40-01	15-821	2530115010	A20/20-01
15-172	2530022010	A20/20-01	15-608	2530073010	A20/20-01	15-822	2530117010	A20/20-01
15-186	2540081010	A20/30-01	15-610	2570035010	A20/8-03	15-827	2540127010	A20/40-01
15-187	2570008010	A20/8-01	15-611	2570036010	A20/8-01	15-832	2530118010	A20/20-01
15-190	2560010010	A20/20-01	15-612	2570037010	A20/8-01	15-833	2530119010	A20/20-01
15-199	2540032010	A20/40-01	15-613	2570038010	A20/8-01	15-834	2530120010	A20/20-01
15-201	2590020010	A20/5-03	15-614	2570039010	A20/8-01	15-836	2530121010	A20/20-01
15-202	2590021010	A20/5-03	15-615	2540044010	A20/40-01			
15-203	2590022010	A20/5-03	15-625	2520319010	A20/20-01			



# A21

Injected grommets in TPE  
thermoplastic elastomer  
rubber





PLIOPRENE TPE is a thermoplastic elastomer with exceptional properties. Compared to vulcanized or cross-linked rubber, PLIOPRENE is in many ways a superior thermoplastic material of high quality with the following properties :

- extreme flexibility (Shore hardness A 60)
- high elasticity
- halogen free
- high temperature up to +125°C
- low temperature down to - 50°C
- resistant to water, acids, aqueous salt solutions, detergents, ozone and weather, aliphatic derivatives (paraffin) and chlorinated solvents
- average resistance to ketones, mineral oils, petrol
- excellent resistance to ageing
- good electrical properties.

PLIOPRENE TPE is similar to rubber and is recommended for parts that need high resistance to both low and high temperatures and where great flexibility and elasticity is required.

PLIOPRENE TPE is classified HB according to UL 94. It corresponds to Vehicle Standards FMVSS 302 for combustion.

PLIOPRENE TPE parts are injected with a superb finish and precisely dimensioned.

**To get the best product with the appearance of rubber and manufactured by injection moulding choose PLIOPRENE TPE !**

# Standard grommets DK-TPE in black PLIOPRENE TPE



PLIOPRENE TPE



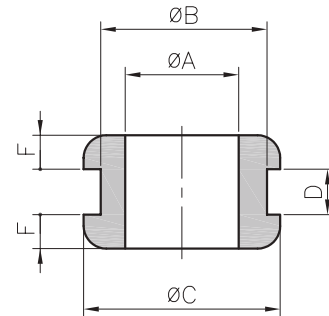
## DK-DKF-DKP TPE

<b>Material:</b>	thermoplastic rubber mixture PP/EPDM
<b>Colour:</b>	black
<b>Operating temperatures:</b>	-50 to +125°C (+150°C short time)
<b>Hardness Shore A:</b>	55 +/- 5
<b>Tensile strength at break:</b>	> 4,5 MPa
<b>Ultimate elongation:</b>	> 300%
<b>Dielectric strength:</b>	35 kV/mm
<b>Flame resistance:</b>	HB UL94




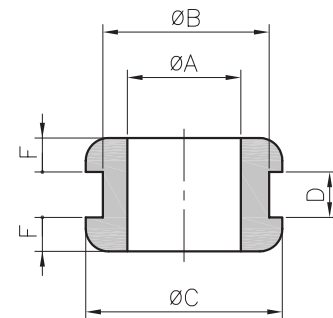
### • Grommets DK-TPE with hole

type	article number	dimensions (mm)					F	
		Ø A	Ø B	Ø C	D			
DK-TPE 2/5/8-1	0145 0001 010	2	5	8	1	1,5	100	
DK-TPE 2/5/8-1,5	0145 0002 010	2	5	8	1,5	1,5	100	
DK-TPE 2/5/8-2	0145 0003 010	2	5	8	2	1,5	100	
DK-TPE 3/5/8-1	0145 0004 010	3	5	8	1	1,5	100	
DK-TPE 3/5/8-1,5	0145 0005 010	3	5	8	1,5	1,5	100	
DK-TPE 3/5/8-2	0145 0006 010	3	5	8	2	1,5	100	
DK-TPE 4/6/11-4	0145 0090 010	4	6	11	4	2	100	
DK-TPE 4/8/11-1	0145 0007 010	4	8	11	1	2	100	
DK-TPE 4/8/11-1,5	0145 0008 010	4	8	11	1,5	2	100	
DK-TPE 4/8/11-2	0145 0009 010	4	8	11	2	2	100	
DK-TPE 4,8/8/12-1,5	0145 0124 010	4,8	8	12	1,5	2	100	
DK-TPE 5/7/11-3	0145 0085 010	5	7	11	3	2	100	
DK-TPE 5/8/11-1	0145 0010 010	5	8	11	1	2	100	
DK-TPE 5/8/11-1,5	0145 0011 010	5	8	11	1,5	2	100	
DK-TPE 5/8/11-2	0145 0012 010	5	8	11	2	2	100	
DK-TPE 5,5/8/12-1,5	0145 0013 010	5,5	8	12	1,5	2	100	
DK-TPE 5,5/9/12-1	0145 0014 010	5,5	9	12	1	2	100	
DK-TPE 5,5/9/12-1,5	0145 0015 010	5,5	9	12	1,5	2	100	
DK-TPE 5,5/9/12-2	0145 0016 010	5,5	9	12	2	2	100	
DK-TPE 5,5/9/12-3	0145 0017 010	5,5	9	12	3	2	100	
DK-TPE 6/8/12-1,5	0145 0018 010	6	8	12	1,5	2	100	
DK-TPE 6/9/12-1	0145 0019 010	6	9	12	1	2	100	
DK-TPE 6/9/12-1,5	0145 0020 010	6	9	12	1,5	2	100	
DK-TPE 6/9/12-2	0145 0021 010	6	9	12	2	2	100	
DK-TPE 6/9/12-3	0145 0022 010	6	9	12	3	2	100	
DK-TPE 6/9/12-4	0145 0091 010	6	9	12	4	2	100	
DK-TPE 6/9/12-5	0145 0092 010	6	9	12	5	2	100	
DK-TPE 6/9/12-6	0145 0093 010	6	9	12	6	2	100	
DK-TPE 6/9/12-7	0145 0094 010	6	9	12	7	2	100	
DK-TPE 6/9/12-8	0145 0095 010	6	9	12	8	2	100	
DK-TPE 6/9/12-9	0145 0096 010	6	9	12	9	2	100	
DK-TPE 6/12/18-2	0145 0023 010	6	12	18	2	2,5	100	
DK-TPE 6/13/18-7	0145 0097 010	6	13	18	7	2,5	100	
DK-TPE 6/14/18-1	0145 0024 010	6	14	18	1	2,5	100	
DK-TPE 7/10/14-1	0145 0025 010	7	10	14	1	2,5	100	
DK-TPE 7/10/14-1,5	0145 0026 010	7	10	14	1,5	2,5	100	
DK-TPE 7/10/14-2	0145 0027 010	7	10	14	2	2,5	100	
DK-TPE 7/10/14-3	0145 0028 010	7	10	14	3	2,5	100	
DK-TPE 7/12/16-1	0145 0029 010	7	12	16	1	2,5	100	
DK-TPE 7/14/18-1	0145 0030 010	7	14	18	1	2,5	100	
DK-TPE 7/14/18-2	0145 0031 010	7	14	18	2	2,5	100	
DK-TPE 7/14/18-3	0145 0032 010	7	14	18	3	2,5	100	




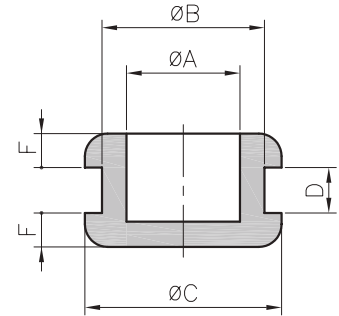
• **Grommets DK-TPE with hole**

type	artide number	dimensions (mm)					F	
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DK-TPE 8/10/14-1	0145 0033 010	8	10	14	1	2,5	100	
DK-TPE 8/10/14-1,5	0145 0034 010	8	10	14	1,5	2,5	100	
DK-TPE 8/10/14-2	0145 0035 010	8	10	14	2	2,5	100	
DK-TPE 8/10/14-3	0145 0036 010	8	10	14	3	2,5	100	
DK-TPE 8/12/16-1	0145 0037 010	8	12	16	1	2,5	100	
DK-TPE 8/12/16-1,5	0145 0038 010	8	12	16	1,5	2,5	100	
DK-TPE 8/12/16-2	0145 0039 010	8	12	16	2	2,5	100	
DK-TPE 8/12/16-3	0145 0040 010	8	12	16	3	2,5	100	
DK-TPE 8/14/18-1	0145 0041 010	8	14	18	1	2,5	100	
DK-TPE 8/14/18-2	0145 0042 010	8	14	18	2	2,5	100	
DK-TPE 8/14/18-3	0145 0043 010	8	14	18	3	2,5	100	
DK-TPE 9/12/16-1	0145 0044 010	9	12	16	1	2,5	100	
DK-TPE 9/12/16-1,5	0145 0045 010	9	12	16	1,5	2,5	100	
DK-TPE 9/12/16-2	0145 0046 010	9	12	16	2	2,5	100	
DK-TPE 9/12/16-3	0145 0047 010	9	12	16	3	2,5	100	
DK-TPE 9/14/18-1	0145 0048 010	9	14	18	1	2,5	100	
DK-TPE 9/14/18-2	0145 0049 010	9	14	18	2	2,5	100	
DK-TPE 9/14/18-3	0145 0050 010	9	14	18	3	2,5	100	
DK-TPE 10/12/16-1	0145 0051 010	10	12	16	1	2,5	100	
DK-TPE 10/12/16-1,5	0145 0052 010	10	12	16	1,5	2,5	100	
DK-TPE 10/12/16-2	0145 0053 010	10	12	16	2	2,5	100	
DK-TPE 10/12/16-3	0145 0054 010	10	12	16	3	2,5	100	
DK-TPE 10/18/22-1	0145 0055 010	10	18	22	1	2,5	100	
DK-TPE 10/18/22-2	0145 0056 010	10	18	22	2	2,5	100	
DK-TPE 10/18/22-3	0145 0057 010	10	18	22	3	2,5	100	
DK-TPE 10/18/22-4	0145 0058 010	10	18	22	4	2,5	100	
DK-TPE 11/18/22-1	0145 0059 010	11	18	22	1	2,5	100	
DK-TPE 11/18/22-2	0145 0060 010	11	18	22	2	2,5	100	
DK-TPE 11/18/22-3	0145 0061 010	11	18	22	3	2,5	100	
DK-TPE 11/18/22-4	0145 0062 010	11	18	22	4	2,5	100	
DK-TPE 12/18/22-1	0145 0063 010	12	18	22	1	2,5	100	
DK-TPE 12/18/22-2	0145 0064 010	12	18	22	2	2,5	100	
DK-TPE 12/18/22-3	0145 0065 010	12	18	22	3	2,5	100	
DK-TPE 12/18/22-4	0145 0066 010	12	18	22	4	2,5	100	
DK-TPE 14/22/27-1	0145 0067 010	14	22	27	1	3	100	
DK-TPE 14/22/27-1,5	0145 0068 010	14	22	27	1,5	3	100	
DK-TPE 14/22/27-2	0145 0069 010	14	22	27	2	3	100	
DK-TPE 14/22/27-3	0145 0070 010	14	22	27	3	3	100	
DK-TPE 14/22/27-4	0145 0071 010	14	22	27	4	3	100	
DK-TPE 16/22/27-1	0145 0072 010	16	22	27	1	3	100	
DK-TPE 16/22/27-1,5	0145 0073 010	16	22	27	1,5	3	100	
DK-TPE 16/22/27-2	0145 0074 010	16	22	27	2	3	100	
DK-TPE 16/22/27-3	0145 0075 010	16	22	27	3	3	100	
DK-TPE 16/22/27-4	0145 0076 010	16	22	27	4	3	100	
DK-TPE 18/22/27-1	0145 0077 010	18	22	27	1	3	100	
DK-TPE 18/22/27-1,5	0145 0078 010	18	22	27	1,5	3	100	
DK-TPE 18/22/27-2	0145 0079 010	18	22	27	2	3	100	
DK-TPE 18/22/27-3	0145 0080 010	18	22	27	3	3	100	
DK-TPE 18/22/27-4	0145 0081 010	18	22	27	4	3	100	




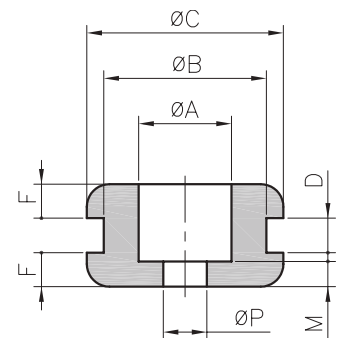
• **Grommets DKF-TPE, blind (with membrane to perforate)**

type	article number	dimensions (mm)					
		Ø A	Ø B	Ø C	D	F	
DKF-TPE 5/7/11-3	0145 0098 010	5	7	11	3	2	100
DKF-TPE 5,5/9/12-3	0145 0101 010	5,5	9	12	3	2	100
DKF-TPE 6/9/12-3	0145 0102 010	6	9	12	3	2	100
DKF-TPE 6/14/18-1	0145 0103 010	6	14	18	1	2,5	100
DKF-TPE 7/14/18-3	0145 0104 010	7	14	18	3	2,5	100
DKF-TPE 8/14/18-3	0145 0105 010	8	14	18	3	2,5	100
DKF-TPE 9/12/16-2	0145 0120 010	9	12	16	2	2,5	100
DKF-TPE 9/14/18-3	0145 0106 010	9	14	18	3	2,5	100
DKF-TPE 10/18/22-3	0145 0107 010	10	18	22	3	2,5	100
DKF-TPE 10/18/22-4	0145 0108 010	10	18	22	4	2,5	100
DKF-TPE 11/18/22-3	0145 0109 010	11	18	22	3	2,5	100
DKF-TPE 11/18/22-4	0145 0110 010	11	18	22	4	2,5	100
DKF-TPE 12/18/22-3	0145 0111 010	12	18	22	3	2,5	100
DKF-TPE 12/18/22-4	0145 0112 010	12	18	22	4	2,5	100



• **Grommets DKP-TPE (with perforated membrane)**

type	article number	dimensions (mm)								
		Ø A	Ø B	Ø C	D	F	M	Ø P		
DKP-TPE 3-5/7/11-3	0145 0127 010	5	7	11	3	2,5	0,7	3	100	
DKP-TPE 3-7/14/18-3	0145 0088 010	7	14	18	3	2,5	2,5	3	100	
DKP-TPE 3-9/12/16-2	0145 0123 010	9	12	16	2	2,5	2	3	100	
DKP-TPE 6,5-8/12/16-2	0145 0083 010	8	12	16	2	2,5	1	6,5	100	
DKP-TPE 3,1-9/14/18-3	0145 0086 010	9	14	18	3	2,5	2	3,1	100	
DKP-TPE 5,5-9/14/18-3	0145 0087 010	9	14	18	3	2,5	2	5,5	100	
DKP-TPE 6-10/18/22-3	0145 0122 010	10	18	22	3	2,5	2	6	100	
DKP-TPE 7-10/18/22-3	0145 0125 010	10	18	22	3	2,5	2	7	100	
DKP-TPE 8-10/18/22-3	0145 0089 010	10	18	22	3	2,5	2	8	100	
DKP-TPE 9-10/18/22-3	0145 0126 010	10	18	22	3	2,5	2	9	100	





**DG-TPE**

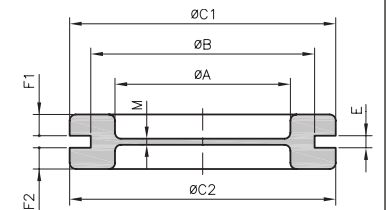
**Material:** thermoplastic rubber  
**Colours:** black - light grey (RAL 7035)  
**Operating temperatures:** -50 to +125°C  
**Hardness Shore A:** 55 ± 5  
**Tensile strength at break:** > 4,5 MPa  
**Ultimate elongation:** > 300 %  
**Dielectric strength:** 35 kV/mm  
**Flame resistance:** HB UL94 (internal test)

**Applications:** grommets with membrane allowing closure of unused entries.  
 They ensure a semi-sealing against dust when cables or conduits pass through their membrane.



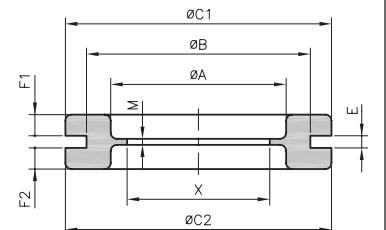
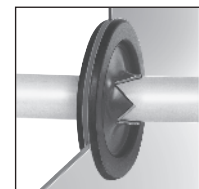
**• Membrane grommets**

type	article number		dimensions (mm)								100
	black 010	grey 025	Ø A	Ø B	Ø C1	Ø C2	E	F1	F2	M	
DG-TPE 9	0144 0010 010	0144 0010 025	9	15	20	18	2	2,5	2,5	1	100
DG-TPE 11	0144 0020 010	0144 0020 025	11	18	22,5	21,5	2	2,5	2,5	1	100
DG-TPE 13,5	0144 0030 010	0144 0030 025	13,5	20	24	24	2	2,5	2,5	1	100
DG-TPE 16	0144 0040 010	0144 0040 025	16	22	27,5	26	2	2,7	2,7	1	100
DG-TPE 21	0144 0050 010	0144 0050 025	21	28	34,5	34,5	2	3	3	1	100
DG-TPE 21/E1	0144 0051 010	-	21	28	34,5	34,5	1	4	3	1,2	100
DG-TPE 29	0144 0060 010	-	29	37	43,5	43,5	2,2	3,7	3,7	1,3	50
DG-TPE 36	0144 0070 010	-	35,5	47	52,5	52,5	2,5	3,8	3,8	1,3	50
DG-TPE 48	0144 0080 010	-	47	59	67	67	2,5	4	4	1,5	50
DG-TPE M20	0144 0401 010	0144 0401 025	13,5	20	24	24	2	2,5	2,5	1	100
DG-TPE M25	0144 0402 010	0144 0402 025	21	25	34,5	31,5	2	3	3	1	100
DG-TPE M32	0144 0403 010	0144 0403 025	29	32	43,5	39	2,2	3,7	3,7	1,3	100



**• Cross-cut membrane grommets (other cuts upon request)**

type	article number	dimensions (mm)								100	
	black 010	Ø A	Ø B	Ø C1	Ø C2	E	F1	F2	M		X
DGC-TPE 9	0144 0211 010	9	15	20	18	2	2,5	2,5	1	8	100
DGC-TPE 11	0144 0221 010	11	18	22,5	21,5	2	2,5	2,5	1	10	100
DGC-TPE 13,5	0144 0231 010	13,5	20	24	24	2	2,5	2,5	1	10	100
DGC-TPE 16	0144 0241 010	16	22	27,5	26	2	2,7	2,7	1	14	100
DGC-TPE 21	0144 0253 010	21	28	34,5	34,5	2	3	3	1	17	100
DGC-TPE 21/E1	0144 0310 010	21	28	34,5	34,5	1	4	3	1,2	19,5	100
DGC-TPE 29	0144 0262 010	29	37	43,5	43,5	2,2	3,7	3,7	1,3	25	50
DGC-TPE 36	0144 0290 010	35,5	47	52,5	52,5	2,5	3,8	3,8	1,3	32	50
DGC-TPE 48	0144 0301 010	47	59	67	67	2,5	4	4	1,5	42	50

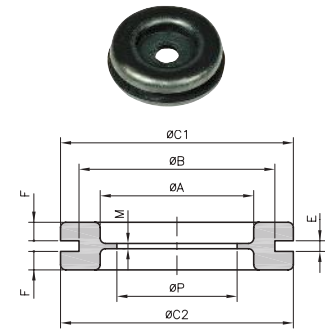






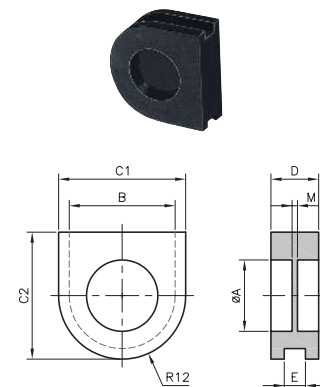
• Grommets with perforated membrane (other cuts upon request)

type	article number black 010	dimensions (mm)								
		Ø A	Ø B	Ø C1	Ø C2	E	F	M	Ø P	
DG-TPE 11/4,5	0144 0220 010	11	18	22,5	21,5	2	2,5	1	4,5	100
DG-TPE 16/10	0144 0240 010	16	22	27,5	26	2	2,7	1	10	100
DG-TPE 21/18	0144 0250 010	21	28	34,5	34,5	2	3	1	18	100
DG-TPE 21/20	0144 0251 010	21	28	34,5	34,5	2	3	1	20	100



• Special membrane grommets

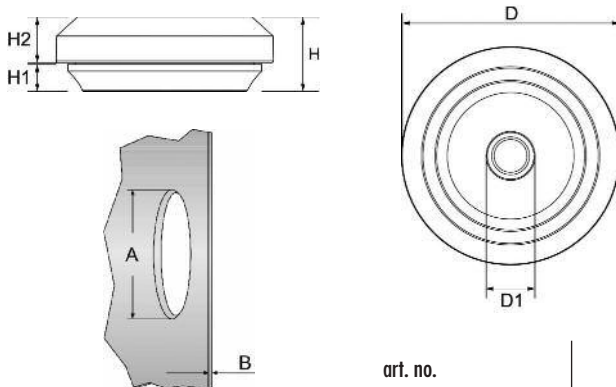
type	article number black 010	dimensions (mm)							
		Ø A	B	C1	C2	D	E	M	
DG-TPE 12-747	0146 0320 010	13,5	20	24	24	9	4	1	100
DG-TPE 12-1475	0146 0321 010	13,5	20	24	24	9	2	1	100



### DGX-TPE

**Material:** Thermoplastic Elastomer  
**Colour:** black - light grey (RAL 7035)  
**Operating temperature:** -50 to + 125°C  
**Protection:** IP 67

**Applications:** sealing grommet is very flexible, simple and quick to assemble without tools, even on curved surfaces. It adapts to the cable diameter and ensures its protection. It can be used as a stopper.



type	art. no.	for cable Ø mm	A mm	B mm	D* mm	D1 mm	H mm	H1 mm	H2* mm	
	black 010									
	light grey 025									

### • Serie DGX metric

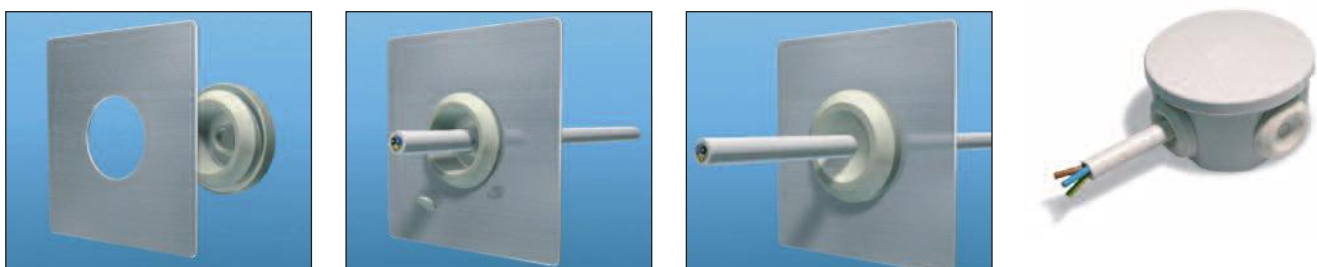
Model	Black Art. No.	Light Grey Art. No.	for cable Ø mm	A mm	B mm	D* mm	D1 mm	H mm	H1 mm	H2* mm	Quantity
DGX-M16-TPE	0144 0701 010	0144 0701 025	5 - 10	16,5	0,5 - 3	23,5	4	11	4	6,75	50
DGX-M20-TPE	0144 0702 010	0144 0702 025	6 - 13	20,5	0,5 - 3	27,5	5	11	4	6,75	50
DGX-M25-TPE	0144 0703 010	0144 0703 025	8 - 17	25,5	0,5 - 3,5	32,5	7	11	4	6,75	50
DGX-M32-TPE	0144 0704 010	0144 0704 025	12 - 24	32,5	0,5 - 4,5	39,5	11	11	4	6,75	25
DGX-M40-TPE	0144 0705 010	0144 0705 025	19 - 31	40,5	1,5 - 4,5	47,5	18	13,5	4,84	7,41	25

### • Serie DGX PG

Model	Black Art. No.	Light Grey Art. No.	for cable Ø mm	A mm	B mm	D* mm	D1 mm	H mm	H1 mm	H2* mm	Quantity
DGX-PG9-TPE	0144 0711 010	0144 0711 025	5 - 10	16	0,5 - 3	24	4	11	4	6,75	50
DGX-PG11-TPE	0144 0712 010	0144 0712 025	6 - 12	19	0,5 - 3	26	5	11	4	6,75	50
DGX-PG16-TPE	0144 0713 010	0144 0713 025	8 - 15	23	0,5 - 3,5	30	7	11	4	6,75	50
DGX-PG21-TPE	0144 0714 010	0144 0714 025	10 - 20	29	0,5 - 4,5	36	9	11	4	6,75	25
DGX-PG29-TPE	0144 0715 010	0144 0715 025	18 - 27	38	1,5 - 4,5	45	17	13,5	4,84	7,41	25

\* variable according to the wall thickness

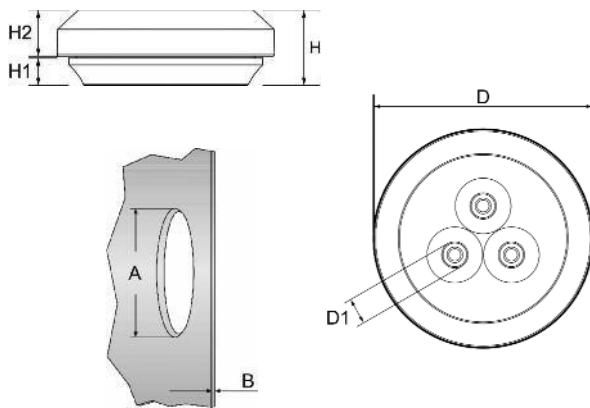
### Assembly principle



### DGX-MULTI TPE

**Material:** Thermoplastic Elastomer  
**Colour:** black - light grey (RAL 7035)  
**Operating temperature:** -50 to + 125°C  
**Protection:** IP 67

**Applications:** sealing grommet is very flexible, simple and quick to assemble without tools. Allow the passage of 3 cables while maintaining the seal. It adapts to the cable diameters and protects them. It can be used as a stopper.



type	art. no.		for cable Ø mm	A mm	B mm	D* mm	D1 mm	H mm	H1 mm	H2* mm	
	black 010	light grey 025									

### • Serie DGX-MULTI metric

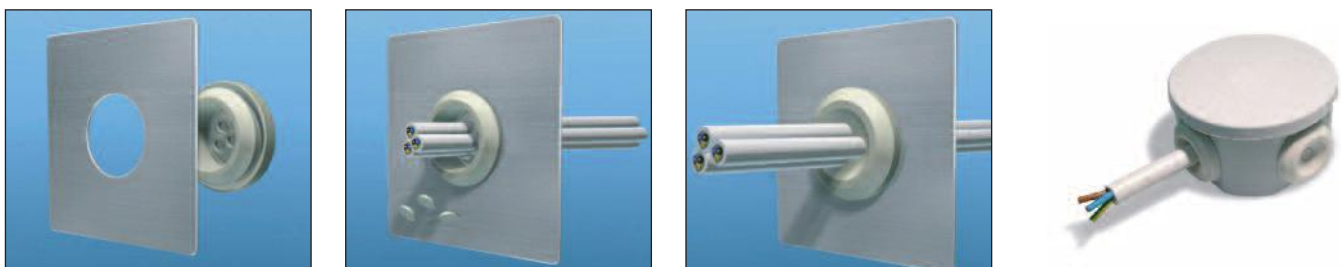
DGX-MULTI M20-TPE	0144 0722 010	0144 0722 025	3x 4 - 7	20,5	0,5 - 3	27,5	3	11	4	6,75	50
DGX-MULTI M25-TPE	0144 0723 010	0144 0723 025	3x 4 - 9	25,5	0,5 - 3,5	32,5	3	11	4	6,75	50

### • Serie DGX-MULTI PG

DGX-MULTI PG11-TPE	0144 0732 010	0144 0732 025	3x 4 - 6	19	0,5 - 3	26	3	11	4	6,75	50
DGX-MULTI PG16-TPE	0144 0733 010	0144 0733 025	3x 4 - 8	23	0,5 - 3,5	30	3	11	4	6,75	50

\* variable according to the wall thickness

### Assembly principle




# Strain relief grommets in black PLIOPRENE TPE

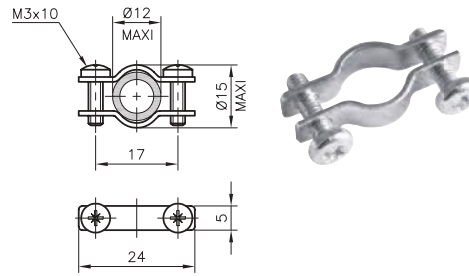


PLIOPRENE TPE

-50 to +125°C

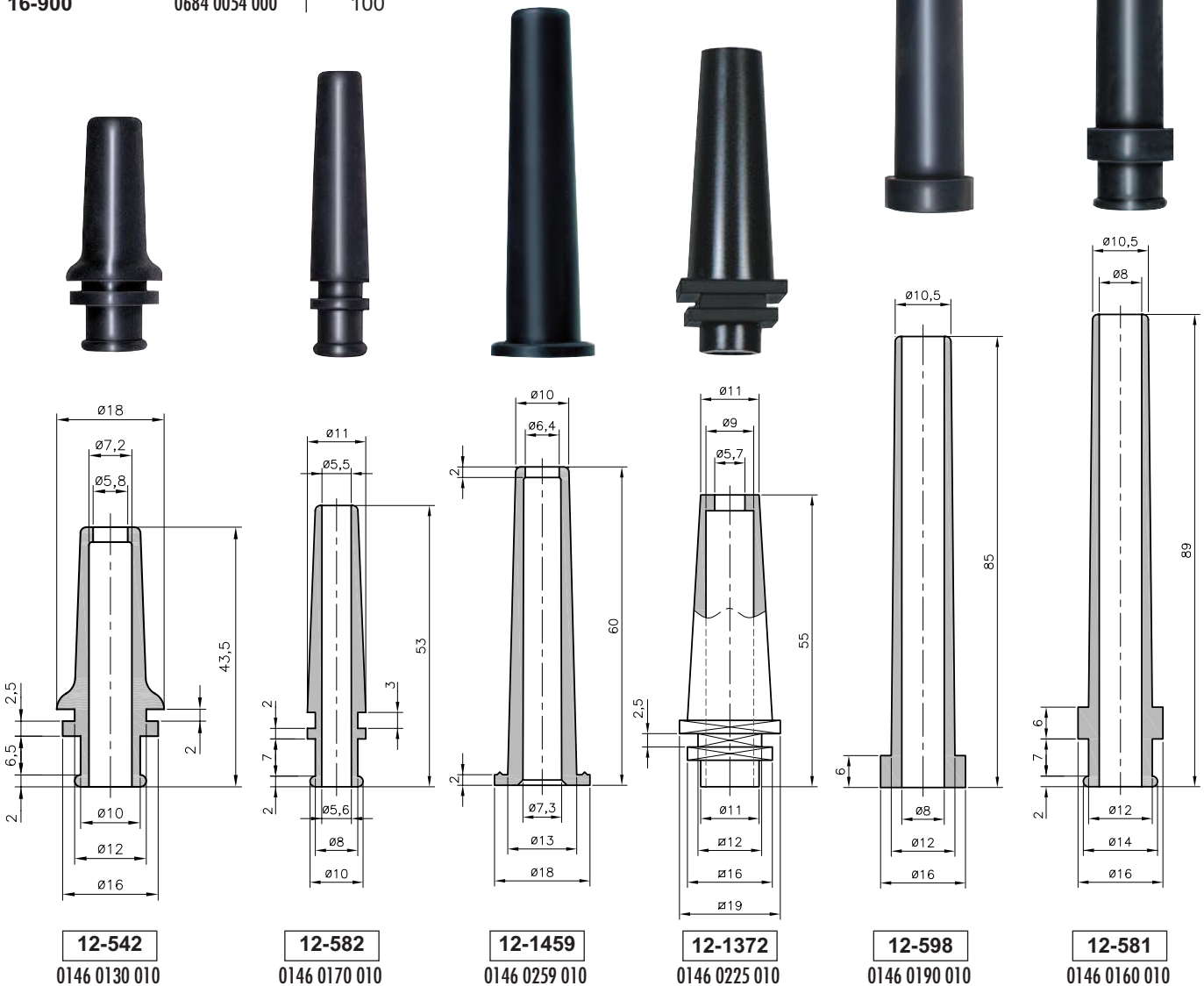


type	article number	
12-542 TPE	0146 0130 010	100
12-552 TPE	0146 0140 010	100
12-553 TPE	0146 0150 010	100
12-581 TPE	0146 0160 010	100
12-582 TPE	0146 0170 010	100
12-583 TPE	0146 0180 010	100
12-598 TPE	0146 0190 010	100
12-599 TPE	0146 0200 010	100
12-600 TPE	0146 0210 010	100
12-908 TPE	0146 0220 010	100
12-1372 TPE	0146 0225 010	50
12-1374 TPE	0146 0230 010	100
12-1392 TPE	0146 0240 010	100
12-1459 TPE	0146 0259 010	100
12-1460 TPE	0146 0260 010	100
12-1462 TPE	0146 0250 010	100
12-1466 TPE	0146 0251 010	100
12-1584 TPE	0146 0261 010	100



**16-900**  
0684 0054 000

**Metal clamp for strain relief grommets**  
12-542 ; 12-582 ; 12-583 ; 12-908  
**16-900** 0684 0054 000 100

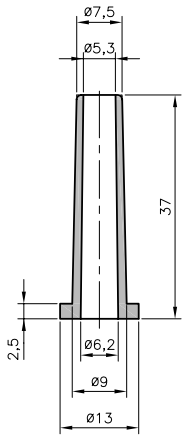


**Strain relief grommets**  
in black PLIOPRENE TPE

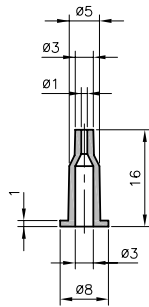


**PLIOPRENE TPE**

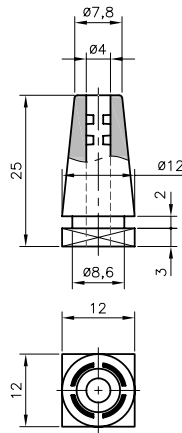
-50 to +125°C



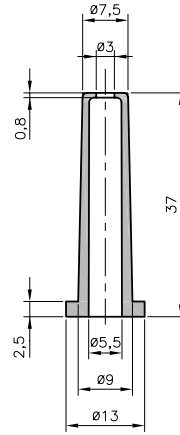
**12-1466**  
0146 0251 010



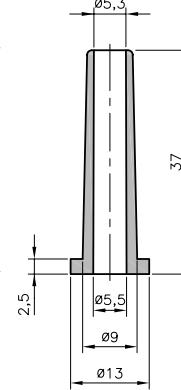
**12-1460**  
0146 0260 010



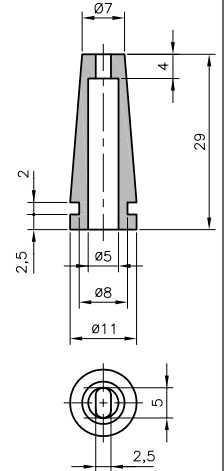
**12-1392**  
0146 0240 010



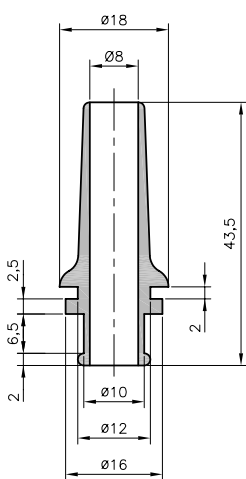
**12-1462**  
0146 0250 010



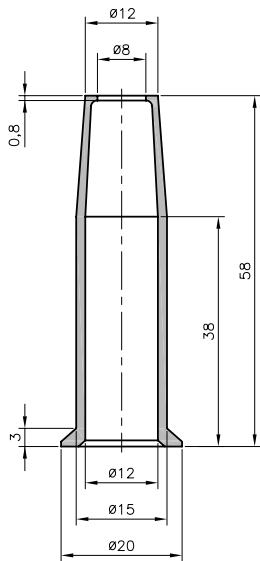
**12-600**  
0146 0210 010



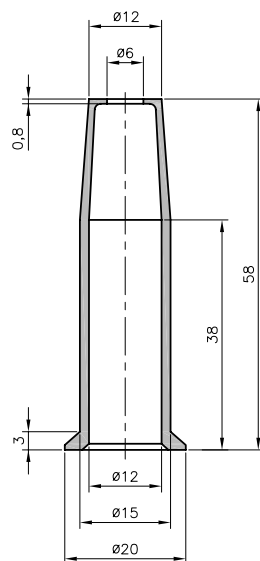
**12-1374**  
0146 0230 010



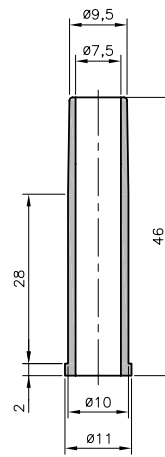
**12-908**  
0146 0220 010



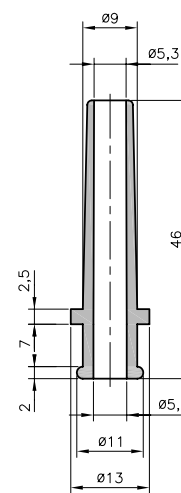
**12-552**  
0146 0140 010



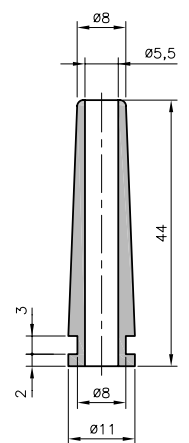
**12-1584**  
0146 0261 010



**12-553**  
0146 0150 010



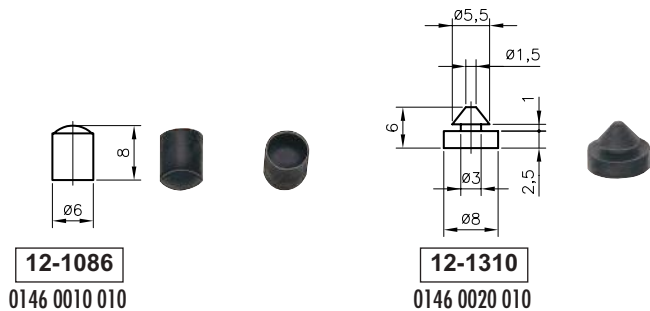
**12-583**  
0146 0180 010



**12-599**  
0146 0200 010

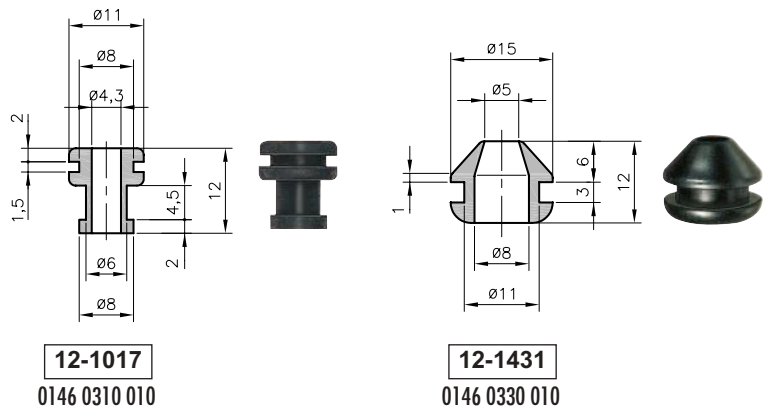
• Buffers or feet in black Plioprene (-50 to +125°C)

type	artide number	
12-1086 TPE	0146 0010 010	100
12-1310 TPE	0146 0020 010	100



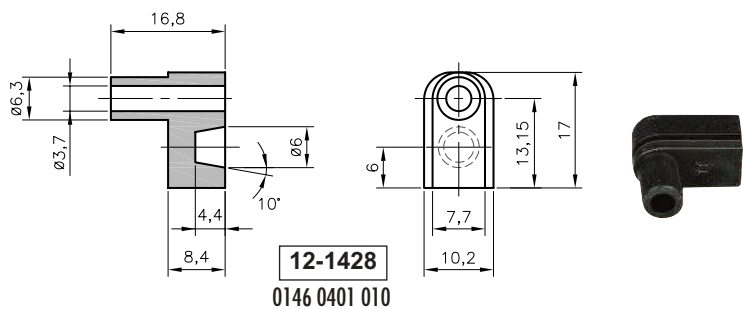
• Special grommet in black Plioprene (-50 to +125°C)

type	artide number	
Special grommet		
12-1017 TPE	0146 0310 010	100
12-1431 TPE	0146 0330 010	100



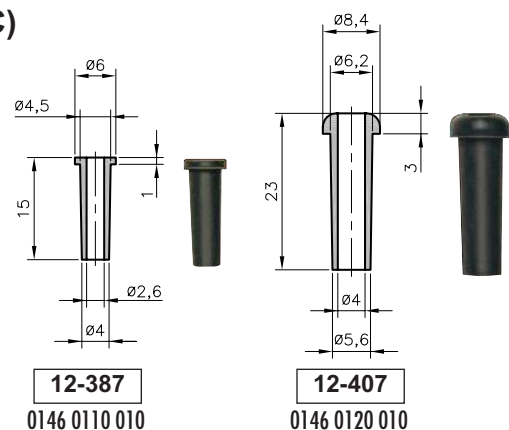
Cable grommet

12-1428 TPE	0146 0401 010	100
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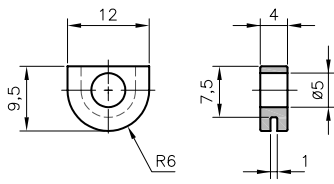

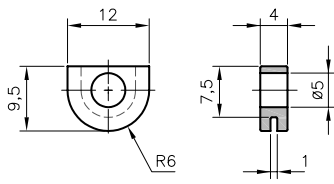


• Bushes in Plioprene very flexible, black (-40 to +70°C)

type	artide number	
12-387 TPE	0146 0110 010	100
12-407 TPE	0146 0120 010	100





Эти кусты можно легко нанести на наши расширители рукавов:  
12-387 с расширителями рукавов KP1 или KY1  
12-407 с расширителями рукавов KP2 или KY2  
См. Страницу D1/1 -...

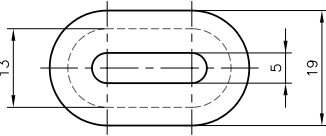
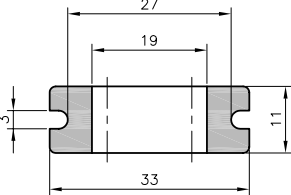
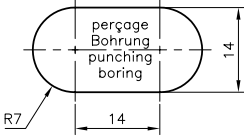

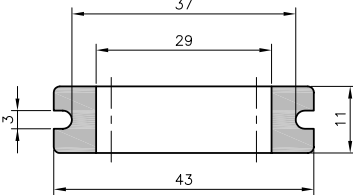
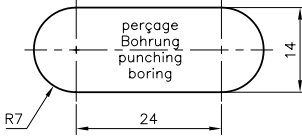
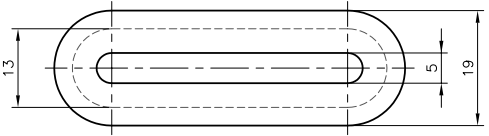
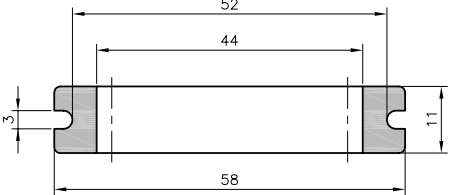
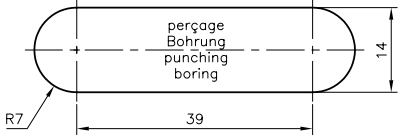
**• Special grommet in black Plioprene**

type	article number			
12-1461 TPE	0146 0331 010	100	 <b>12-1461</b> 0146 0331 010	
12-1480 TPE	0146 0332 010	50	 <b>12-1480</b> 0146 0332 010	

**• Oval DO-TPE grommets in black Plioprene for flat wire protection**

type	article number		
DO-TPE 19/27/33/3	0144 0351 010	100	
DO-TPE 29/37/43/3	0144 0352 010	100	
DO-TPE 44/52/58/3	0144 0353 010	100	

   <b>DO 19/27/33/3</b> 0144 0351 010	   <b>DO 29/37/43/3</b> 0144 0352 010	   <b>DO 44/52/58/3</b> 0144 0353 010
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**Boots**  
in black PLIOPRENE TPE




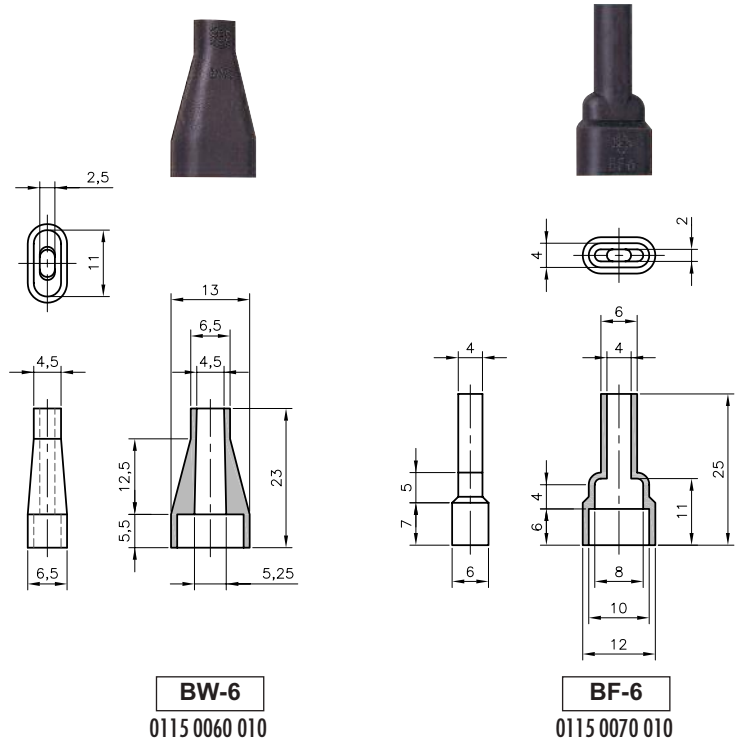
**PLIOPRENE TPE**

**-50 to +125°C**



**• Boots for male push-on-terminals (right)**


type	artide number	for crimps	Ø OF wireS mm	
<b>BW-6 TPE</b>	0115 0060 010	6,3	3,6	500
<b>BF-6 TPE</b>	0115 0070 010	6,3	3,6	500

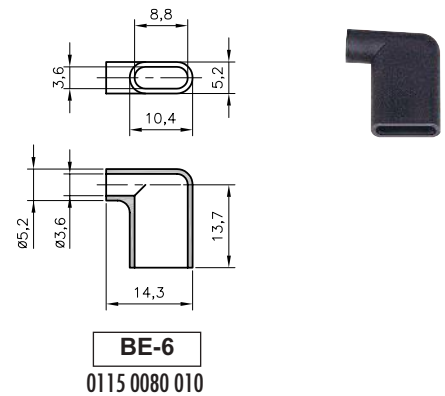


**BW-6**  
0115 0060 010


**BF-6**  
0115 0070 010

**• Boots for female flag crimp terminals**

type	artide number	for crimps	Ø of wires mm	
<b>BE-6 TPE</b>	0115 0080 010	6,3	3,6	500



**BE-6**  
0115 0080 010

 D6/3-02 - Receptacle





# Boots in black PLIOPRENE TPE




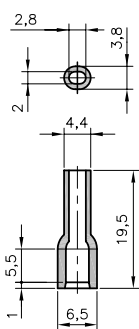
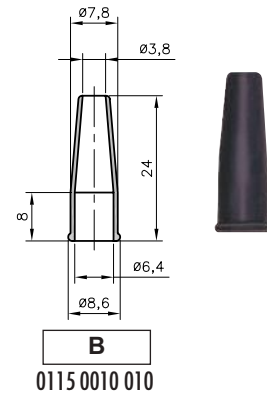
PLIOPRENE TPE

-50 to +125°C

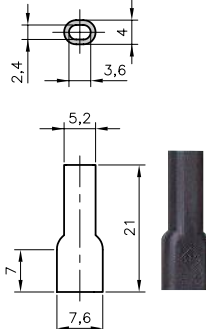


## • Boots for female push-on-terminals (right)

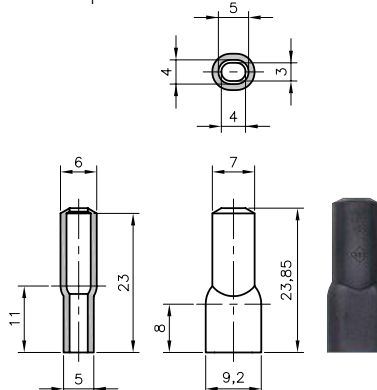
type	article number	for crimps	Ø of wires mm	
B-TPE	0115 0010 010	6,3	4	500
B-3 TPE	0115 0020 010	2,8	2,8	500
B-4 TPE	0115 0030 010	4,8	3,2	500
B-5 TPE	0115 0040 010	5 AMP	4,5	500
B-6 TPE	0115 0050 010	6,3	3,6	500
BL-6 TPE	0115 0090 010	6,3	3,2	500
BK-6 TPE	0115 0100 010	6,3	3,2	500
BM-6 TPE	0115 0110 010	6,3	5	500
BN-6 TPE	0115 0120 010	6,3	5	500



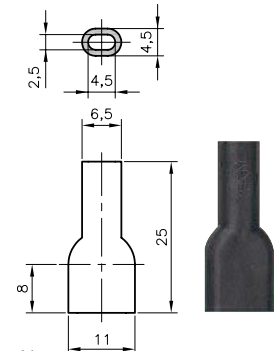
**B-3**  
0115 0020 010



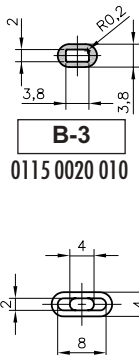
**B-4**  
0115 0030 010



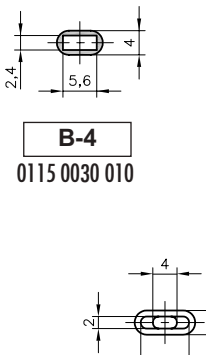
**B-5**  
0115 0040 010



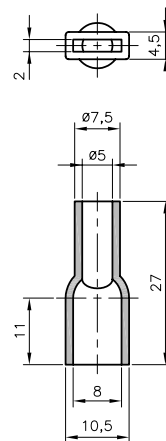
**B-6**  
0115 0050 010



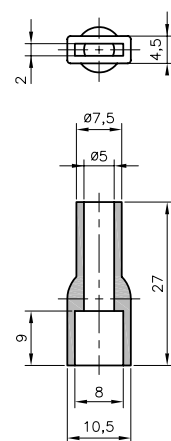
**BL-6**  
0115 0090 010




**BK-6**  
0115 0100 010



**BM-6**  
0115 0110 010



**BN-6**  
0115 0120 010

 D6/3-02 - Receptacle





# A22

Injected parts in flexible  
PVC





Flexible PVC has long been known as one of the most economical and useful thermo-plastic materials, particularly within the electrical industry. Injection moulded parts in PVC always yield a good surface finish and are dimensionally inert, particularly if the moulding is carried out by an experienced company.

For decades, SES-STERLING has gained this experience by manufacturing extruded and moulded parts in flexible PVC under the PLIO trademark.

Modern, up to date and sophisticated injection moulding machines ensure a very high production rate with consequent economic manufacturing costs. STERLING has its own design and toolmaking shop which also maintains and repairs tooling.

PLIO PVC has following properties:

- resistance against heat: + 90°C for short time, +70/75°C for long duration.
- resistance against cold: -25 to -30°C
- resistant to : water, ozone, UV, diluted acids, alkaline solutions and salts.
- very good resistance to ageing.
- average resistance to ketones, mineral oils, petrol, and esters.
- very good dielectric properties.
- wide range of colours.
- transparent or translucent mouldings are possible.

To complete its product range, SES-STERLING has other qualities (PP, PE, PA).

# PLIO standard grommets DK in flexible black PVC 9542



PLIO®



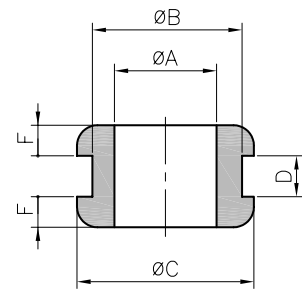
## DK-DKF-DR-DKP PVC

Material:	flexible PVC
Colour:	black
Operating temperatures:	-30 to +70°C
Hardness Shore A:	55 ± 5
Tensile strength at break:	8 MPa
Ultimate elongation:	> 250 %
Dielectric strength:	> 20 kV/mm
Specification:	HB UL94



### • Series DK, perforated

type	article number	dimensions (mm)						
		Ø A	Ø B	Ø C	D	F		
DK-PVC 2/5/8-1	0107 0001 010	2	5	8	1	1,5	100	
DK-PVC 2/5/8-1,5	0107 0002 010	2	5	8	1,5	1,5	100	
DK-PVC 2/5/8-2	0107 0003 010	2	5	8	2	1,5	100	
DK-PVC 3/5/8-1	0107 0004 010	3	5	8	1	1,5	100	
DK-PVC 3/5/8-1,5	0107 0005 010	3	5	8	1,5	1,5	100	
DK-PVC 3/5/8-2	0107 0006 010	3	5	8	2	1,5	100	
DK-PVC 4/6/11-4	0107 0100 010	4	6	11	4	2	100	
DK-PVC 4/8/11-1	0107 0007 010	4	8	11	1	2	100	
DK-PVC 4/8/11-1,5	0107 0008 010	4	8	11	1,5	2	100	
DK-PVC 4/8/11-2	0107 0009 010	4	8	11	2	2	100	
DK-PVC 4,8/8/12-1,5	0107 0123 010	4,8	8	12	1,5	2	100	
DK-PVC 5/7/11-3	0107 0110 010	5	7	11	3	2	100	
DK-PVC 5/8/11-1	0107 0010 010	5	8	11	1	2	100	
DK-PVC 5/8/11-1,5	0107 0011 010	5	8	11	1,5	2	100	
DK-PVC 5/8/11-2	0107 0012 010	5	8	11	2	2	100	
DK-PVC 5,5/8/12-1,5	0107 0013 010	5,5	8	12	1,5	2	100	
DK-PVC 5,5/9/12-1	0107 0014 010	5,5	9	12	1	2	100	
DK-PVC 5,5/9/12-1,5	0107 0015 010	5,5	9	12	1,5	2	100	
DK-PVC 5,5/9/12-2	0107 0016 010	5,5	9	12	2	2	100	
DK-PVC 5,5/9/12-3	0107 0017 010	5,5	9	12	3	2	100	
DK-PVC 6/8/12-1,5	0107 0069 010	6	8	12	1,5	2	100	
DK-PVC 6/9/12-1	0107 0018 010	6	9	12	1	2	100	
DK-PVC 6/9/12-1,5	0107 0019 010	6	9	12	1,5	2	100	
DK-PVC 6/9/12-2	0107 0020 010	6	9	12	2	2	100	
DK-PVC 6/9/12-3	0107 0021 010	6	9	12	3	2	100	
DK-PVC 6/9/12-4	0107 0090 010	6	9	12	4	2	100	
DK-PVC 6/9/12-5	0107 0091 010	6	9	12	5	2	100	
DK-PVC 6/9/12-6	0107 0092 010	6	9	12	6	2	100	
DK-PVC 6/9/12-7	0107 0093 010	6	9	12	7	2	100	
DK-PVC 6/9/12-8	0107 0094 010	6	9	12	8	2	100	
DK-PVC 6/9/12-9	0107 0095 010	6	9	12	9	2	100	
DK-PVC 6/12/18-2	0107 0087 010	6	12	18	2	2,5	100	
DK-PVC 6/13/18-7	0107 0070 010	6	13	18	7	2,5	100	
DK-PVC 6/14/18-1	0107 0071 010	6	14	18	1	2,5	100	
DK-PVC 7/10/14-1	0132 0090 010	7	10	14	1	2,5	100	
DK-PVC 7/10/14-1,5	0132 0091 010	7	10	14	1,5	2,5	100	
DK-PVC 7/10/14-2	0132 0092 010	7	10	14	2	2,5	100	
DK-PVC 7/10/14-3	0132 0093 010	7	10	14	3	2,5	100	
DK-PVC 7/12/16-1	0107 0088 010	7	12	16	1	2,5	100	




Gray and white colours available on request.

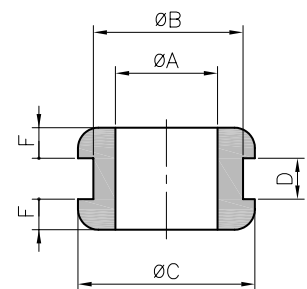
**PLIO standard grommets DK**  
in flexible black PVC 9542



PLIO®



type	article number	dimensions (mm)					F	
		Ø A	Ø B	Ø C	D			
DK-PVC 7/14/18-1	0107 0022 010	7	14	18	1	2,5	100	
DK-PVC 7/14/18-2	0107 0023 010	7	14	18	2	2,5	100	
DK-PVC 7/14/18-3	0107 0024 010	7	14	18	3	2,5	100	
DK-PVC 8/10/14-1	0132 0094 010	8	10	14	1	2,5	100	
DK-PVC 8/10/14-1,5	0132 0095 010	8	10	14	1,5	2,5	100	
DK-PVC 8/10/14-2	0132 0096 010	8	10	14	2	2,5	100	
DK-PVC 8/10/14-3	0132 0097 010	8	10	14	3	2,5	100	
DK-PVC 8/12/16-1	0132 0098 010	8	12	16	1	2,5	100	
DK-PVC 8/12/16-1,5	0132 0099 010	8	12	16	1,5	2,5	100	
DK-PVC 8/12/16-2	0132 0100 010	8	12	16	2	2,5	100	
DK-PVC 8/12/16-3	0132 0101 010	8	12	16	3	2,5	100	
DK-PVC 8/14/18-1	0107 0025 010	8	14	18	1	2,5	100	
DK-PVC 8/14/18-2	0107 0026 010	8	14	18	2	2,5	100	
DK-PVC 8/14/18-3	0107 0027 010	8	14	18	3	2,5	100	
DK-PVC 9/12/16-1	0132 0102 010	9	12	16	1	2,5	100	
DK-PVC 9/12/16-1,5	0132 0103 010	9	12	16	1,5	2,5	100	
DK-PVC 9/12/16-2	0132 0104 010	9	12	16	2	2,5	100	
DK-PVC 9/12/16-3	0132 0105 010	9	12	16	3	2,5	100	
DK-PVC 9/14/18-1	0107 0028 010	9	14	18	1	2,5	100	
DK-PVC 9/14/18-2	0107 0029 010	9	14	18	2	2,5	100	
DK-PVC 9/14/18-3	0107 0030 010	9	14	18	3	2,5	100	
DK-PVC 10/12/16-1	0132 0106 010	10	12	16	1	2,5	100	
DK-PVC 10/12/16-1,5	0132 0107 010	10	12	16	1,5	2,5	100	
DK-PVC 10/12/16-2	0132 0108 010	10	12	16	2	2,5	100	
DK-PVC 10/12/16-3	0132 0109 010	10	12	16	3	2,5	100	
DK-PVC 10/18/22-1	0107 0031 010	10	18	22	1	2,5	100	
DK-PVC 10/18/22-2	0107 0032 010	10	18	22	2	2,5	100	
DK-PVC 10/18/22-3	0107 0033 010	10	18	22	3	2,5	100	
DK-PVC 10/18/22-4	0107 0034 010	10	18	22	4	2,5	100	
DK-PVC 11/18/22-1	0107 0035 010	11	18	22	1	2,5	100	
DK-PVC 11/18/22-2	0107 0036 010	11	18	22	2	2,5	100	
DK-PVC 11/18/22-3	0107 0037 010	11	18	22	3	2,5	100	
DK-PVC 11/18/22-4	0107 0038 010	11	18	22	4	2,5	100	
DK-PVC 12/18/22-1	0107 0039 010	12	18	22	1	2,5	100	
DK-PVC 12/18/22-2	0107 0040 010	12	18	22	2	2,5	100	
DK-PVC 12/18/22-3	0107 0041 010	12	18	22	3	2,5	100	
DK-PVC 12/18/22-4	0107 0042 010	12	18	22	4	2,5	100	
DK-PVC 14/22/27-1	0107 0043 010	14	22	27	1	3	100	
DK-PVC 14/22/27-1,5	0107 0072 010	14	22	27	1,5	3	100	
DK-PVC 14/22/27-2	0107 0044 010	14	22	27	2	3	100	
DK-PVC 14/22/27-3	0107 0045 010	14	22	27	3	3	100	
DK-PVC 14/22/27-4	0107 0046 010	14	22	27	4	3	100	
DK-PVC 16/22/27-1	0107 0047 010	16	22	27	1	3	100	
DK-PVC 16/22/27-1,5	0107 0073 010	16	22	27	1,5	3	100	
DK-PVC 16/22/27-2	0107 0048 010	16	22	27	2	3	100	
DK-PVC 16/22/27-3	0107 0049 010	16	22	27	3	3	100	
DK-PVC 16/22/27-4	0107 0050 010	16	22	27	4	3	100	
DK-PVC 18/22/27-1	0107 0051 010	18	22	27	1	3	100	
DK-PVC 18/22/27-1,5	0107 0074 010	18	22	27	1,5	3	100	
DK-PVC 18/22/27-2	0107 0052 010	18	22	27	2	3	100	
DK-PVC 18/22/27-3	0107 0053 010	18	22	27	3	3	100	
DK-PVC 18/22/27-4	0107 0054 010	18	22	27	4	3	100	

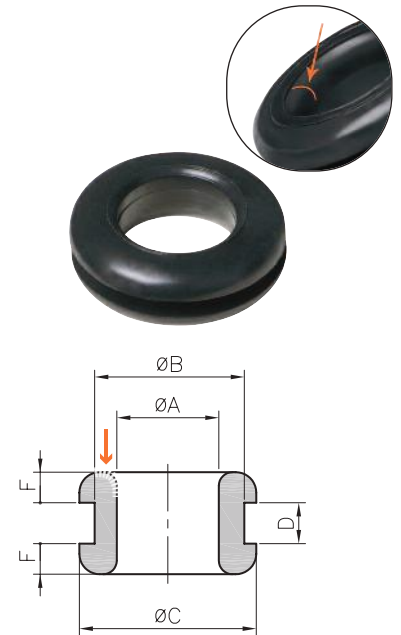


Gray and white colours available on request.



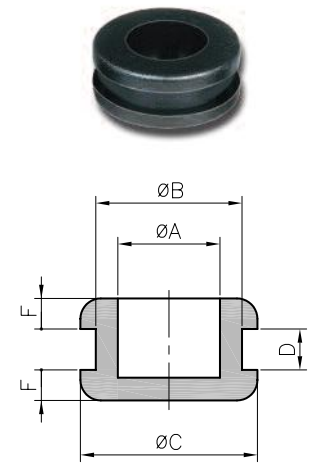
**• Grommets DR-PVC radiused edges**

type	article number	dimensions (mm)					
		Ø A	Ø B	Ø C	D	F	
DR-PVC 4/7/10-1	0132 0010 010	4	7	10	1	1,5	100
DR-PVC 4/7/10-1,5	0132 0011 010	4	7	10	1,5	1,5	100
DR-PVC 4/7/10-2	0132 0012 010	4	7	10	2	1,5	100
DR-PVC 5/8/11-1	0132 0013 010	5	8	11	1	1,5	100
DR-PVC 5/8/11-1,5	0132 0014 010	5	8	11	1,5	1,5	100
DR-PVC 5/8/11-2	0132 0015 010	5	8	11	2	1,5	100
DR-PVC 6/10/14-1	0132 0016 010	6	10	14	1	2	100
DR-PVC 6/10/14-1,5	0132 0017 010	6	10	14	1,5	2	100
DR-PVC 6/10/14-2	0132 0018 010	6	10	14	2	2	100
DR-PVC 6/10/14-3	0132 0019 010	6	10	14	3	2	100
DR-PVC 8/12/16-1	0132 0020 010	8	12	16	1	2	100
DR-PVC 8/12/16-1,5	0132 0021 010	8	12	16	1,5	2	100
DR-PVC 8/12/16-2	0132 0022 010	8	12	16	2	2	100
DR-PVC 8/12/16-3	0132 0023 010	8	12	16	3	2	100
DR-PVC 10/14/18-1	0132 0024 010	10	14	18	1	2	100
DR-PVC 10/14/18-1,5	0132 0025 010	10	14	18	1,5	2	100
DR-PVC 10/14/18-2	0132 0026 010	10	14	18	2	2	100
DR-PVC 10/14/18-3	0132 0027 010	10	14	18	3	2	100



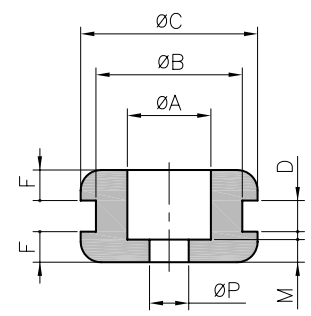
**• Grommets DKF-PVC blind (with membrane to perforate)**

type	article number	dimensions (mm)					
		Ø A	Ø B	Ø C	D	F	
DKF-PVC 5/7/11-3	0107 0109 010	5	7	11	3	2	100
DKF-PVC 5,5/9/12-3	0107 0075 010	5,5	9	12	3	2	100
DKF-PVC 6/9/12-3	0107 0076 010	6	9	12	3	2	100
DKF-PVC 6/14/18-1	0107 0077 010	6	14	18	1	2,5	100
DKF-PVC 7/14/18-3	0107 0078 010	7	14	18	3	2,5	100
DKF-PVC 8/14/18-3	0107 0079 010	8	14	18	3	2,5	100
DKF-PVC 9/12/16-2	0107 0099 010	9	12	16	2	2,5	100
DKF-PVC 9/14/18-3	0107 0080 010	9	14	18	3	2,5	100
DKF-PVC 10/18/22-3	0107 0081 010	10	18	22	3	2,5	100
DKF-PVC 10/18/22-4	0107 0082 010	10	18	22	4	2,5	100
DKF-PVC 11/18/22-3	0107 0083 010	11	18	22	3	2,5	100
DKF-PVC 11/18/22-4	0107 0084 010	11	18	22	4	2,5	100
DKF-PVC 12/18/22-3	0107 0085 010	12	18	22	3	2,5	100
DKF-PVC 12/18/22-4	0107 0086 010	12	18	22	4	2,5	100



**• Grommets DKP-PVC (with perforated membrane)**

type	article number	dimensions (mm)							
		Ø A	Ø B	Ø C	D	F	M	Ø P	
DKP-PVC 3-5/7/11-3	0107 0124 010	5	7	11	3	2,5	0,7	3	100
DKP-PVC 3-7/14/18-3	0107 0055 010	7	14	18	3	2,5	2,5	3	100
DKP-PVC 3-9/12/16-2	0107 0125 010	9	12	16	2	2,5	2	3	100
DKP-PVC 6,5-8/12/16-2	0107 0089 010	8	12	16	2	2,5	1	6,5	100
DKP-PVC 3,1-9/14/18-3	0107 0096 010	9	14	18	3	2,5	2	3,1	100
DKP-PVC 5,5-9/14/18-3	0107 0097 010	9	14	18	3	2,5	2	5,5	100
DKP-PVC 6-10/18/22-3	0107 0102 010	10	18	22	3	2,5	2	6	100
DKP-PVC 7-10/18/22-3	0107 0122 010	10	18	22	3	2,5	2	7	100
DKP-PVC 8-10/18/22-3	0107 0101 010	10	18	22	3	2,5	2	8	100
DKP-PVC 9-10/18/22-3	0107 0103 010	10	18	22	3	2,5	2	9	100



# PLIO® DO oval grommets in flexible PVC




PLIO®



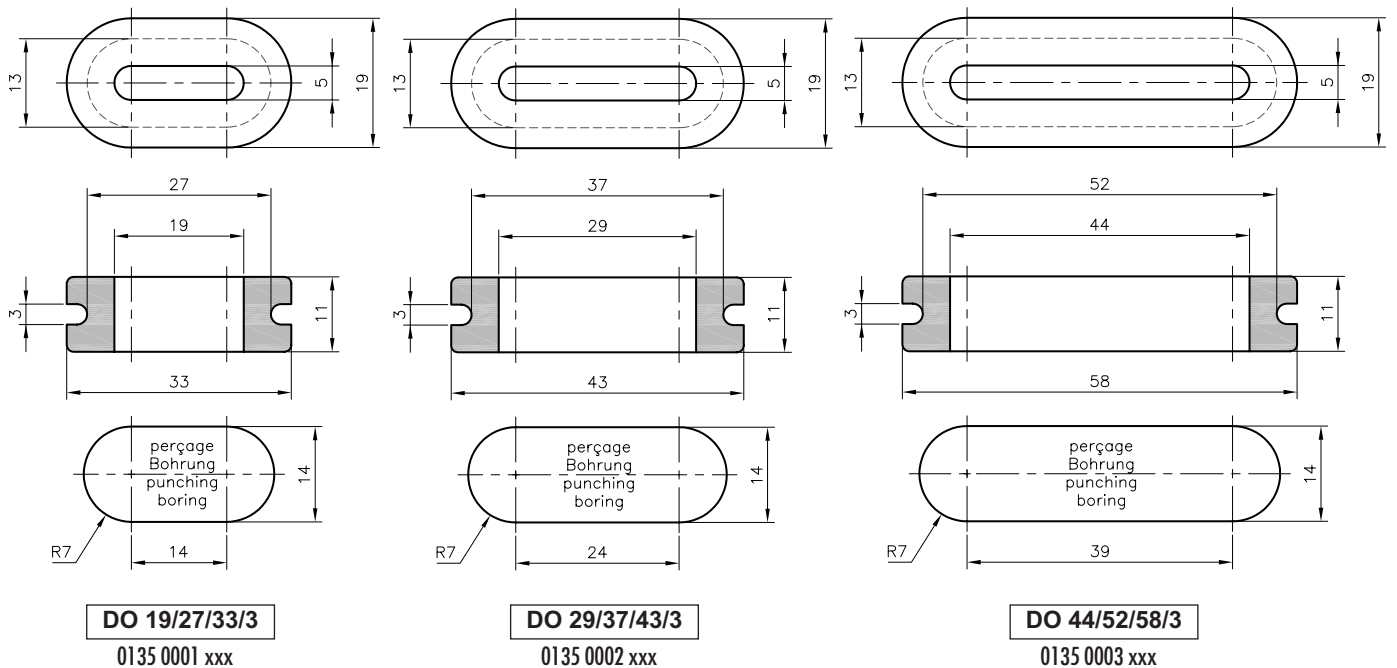
## DO-PVC

**Material:** flexible PVC  
**Colours:** black - grey  
**Operating temperatures:** -30 to +70°C  
**Hardness Shore A:** 55 ± 5  
**Tensile strength at break:** 8 MPa  
**Ultimate elongation:** > 250 %  
**Dielectric strength:** > 20 kV/mm  
**Specification:** HB UL94  
**Application:** for flat wire protection.



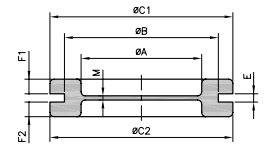
type	article number		
	black 010	grey 013	
DO-PVC 19/27/33/3	0135 0001 010	0135 0001 013	100
DO-PVC 29/37/43/3	0135 0002 010	0135 0002 013	100
DO-PVC 44/52/58/3	0135 0003 010	0135 0003 013	100

If no colour is mentioned on the order, DO grommets will be supplied in grey.



**DG-PVC**

**Material:** flexible polyvinyl chloride  
**Colours:** black - light grey (RAL 7035) - white  
**Operating temperatures:** -30 to +70°C  
**Hardness Shore A:** 55 ± 5  
**Tensile strength at break:** 8 MPa  
**Ultimate elongation:** > 250 %  
**Dielectric strength:** > 20 kV/mm  
**Specification:** HB UL94  
**Application:** closure of unused entries.  
 They allow the passage of cables or conduits through the membrane by ensuring a dust free fit.

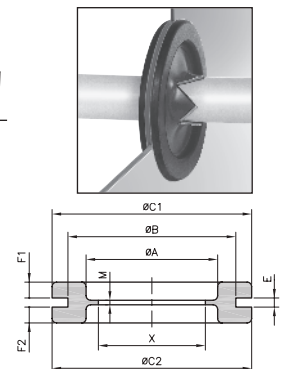


**• Membrane grommets**

type	article number			dimensions (mm)								M	box
	black 010	grey 025	white 001	Ø A	Ø B	Ø C1	Ø C2	E	F1	F2			
DG-PVC 9	0133 0351 010	0133 0351 025	0133 0351 001	9	15	20	18	2	2,5	2,5	1	100	
DG-PVC 11	0133 0352 010	0133 0352 025	0133 0352 001	11	18	22,5	21,5	2	2,5	2,5	1	100	
DG-PVC 13,5	0133 0353 010	0133 0353 025	0133 0353 001	13,5	20	24	24	2	2,5	2,5	1	100	
DG-PVC 16	0133 0354 010	0133 0354 025	0133 0354 001	16	22	27,5	26	2	2,7	2,7	1	100	
DG-PVC 16/E3	0133 0360 010	-	-	16	22	27,5	26	3	2,7	2,7	2	100	
DG-PVC 21	0133 0355 010	0133 0355 025	0133 0355 001	21	28	34,5	34,5	2	3	3	1	100	
DG-PVC 21/E1	0133 0359 010	-	-	21	28	34,5	34,5	1	4	3	1,2	100	
DG-PVC 29	0133 0356 010	-	-	29	36,5	43	43	2,2	3,7	3,7	1,5	50	
DG-PVC 36	0133 0357 010	-	-	35	46	52,5	52,5	2,5	3,8	3,8	1,3	50	
DG-PVC 48	0133 0358 010	-	-	46,5	59	66,2	66,2	2,5	4	4	1,6	50	
DG-PVC M20	0133 0510 010	0133 0510 025	-	13,5	20	24	24	2	2,5	2,5	1	100	
DG-PVC M25	0133 0511 010	0133 0511 025	-	21	25	34,5	34,5	2	3	3	1	100	
DG-PVC M32	0133 0512 010	0133 0512 025	-	29	32	43	43	2	3,5	3,5	1,5	100	

**• Cross-cut membrane grommets** (other cut-outs possible upon request)

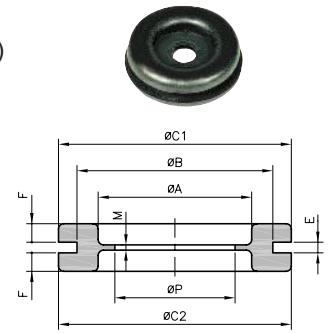
type	article number 010	dimensions (mm)									M	box
		Ø A	Ø B	Ø C1	Ø C2	E	F1	F2	X			
DGC-PVC 9	0133 0451 010	9	15	20	18	2	2,5	2,5	8	1	100	
DGC-PVC 11	0133 0452 010	11	18	22,5	21,5	2	2,5	2,5	10	1	100	
DGC-PVC 13,5	0133 0453 010	13,5	20	24	24	2	2,5	2,5	10	1	100	
DGC-PVC 16	0133 0454 010	16	22	27,5	26	2	2,7	2,7	14	1	100	
DGC-PVC 21	0133 0455 010	21	28	34,5	34,5	2	3	3	17	1	100	
DGC-PVC 21/E1	0133 0456 010	21	28	34,5	34,5	1	4	3	19,5	1,2	100	
DGC-PVC 29	0133 0457 010	29	36,5	43	43	2,2	3,7	3,7	25	1,5	50	
DGC-PVC 36	0133 0458 010	35	46	52,5	52,5	2,5	3,8	3,8	32	1,3	50	
DGC-PVC 48	0133 0464 010	46,5	59	66,2	66,2	2,5	4	4	42	1,6	50	





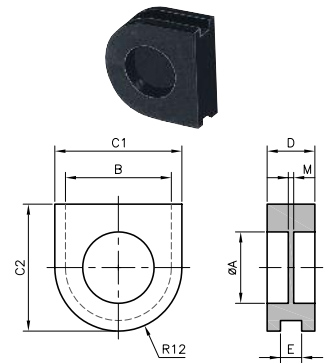
• **Grommets with perforated membrane** (other cut-outs possible upon request)

type	article number	dimensions (mm)									
		Ø A	Ø B	Ø C1	Ø C2	E	F	M	Ø P		
<b>DG-PVC 11/4,5</b>	0133 0402 010	11	18	22,5	21,5	2	2,5	1	4,5	100	
<b>DG-PVC 16/7 E3</b>	0133 0412 010	16	22	27,5	26	3	2,7	2	7	100	



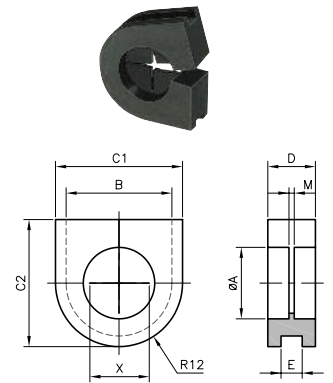
• **Special membrane grommets**

type	article number	dimensions (mm)							
		Ø A	B	C1	C2	D	E	M	
<b>DG-PVC 14-747</b>	0133 0101 010	13,5	20	24	24	9	4	1	100
<b>DG-PVC 14-1475</b>	0133 0102 010	13,5	20	24	24	9	2	1	100



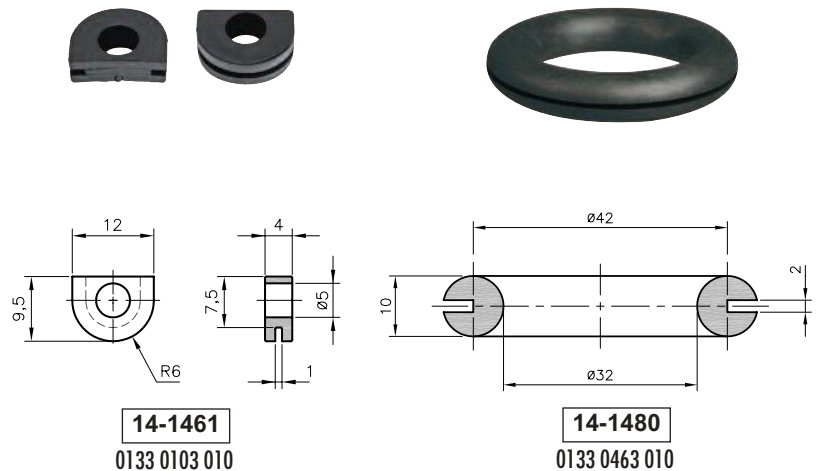
• **Cross-cut membrane grommets cut**

type	article number	dimensions (mm)									
		Ø A	B	C1	C2	D	E	M	X		
<b>DGC-PVC 14-747/F</b>	0133 0459 010	13,5	20	24	24	9	4	1	12	100	
<b>DGC-PVC 14-1475/F</b>	0133 0460 010	13,5	20	24	24	9	2	1	12	100	



• **Special grommets**

type	article number	
<b>14-1461 PVC</b>	0133 0103 010	100
<b>14-1480 PVC</b>	0133 0463 010	50



## DG-MS

**Materials:** polypropylene  
thermoplastic elastomer (TPE)

**Colour:** light grey (RAL 7035)

**Operating temperatures:** -30 to +80°C

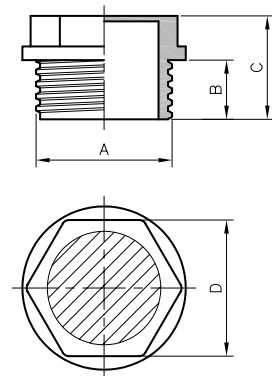
**Protection rating:** IP 66 according to EN 60 529

**Application:** hexagonal membrane grommet with screw thread that allows single cables, flat cables or several cables of small diameters to pass through it.



Delivered without lock-nut.

type	article number	Ø cable max. (mm)	A mm	B mm	C mm	D mm	Ø boring mm	pcs
DG-MS 16	0133 0601 025	9	M16 x 1,5	9	15	17	16,5	100
DG-MS 20	0133 0602 025	13	M20 x 1,5	9	15	20	20,5	100
DG-MS 25	0133 0603 025	18	M25 x 1,5	9	15	24	25,5	100
DG-MS 32	0133 0604 025	25	M32 x 1,5	9	15	32	32,5	100



A8/2-03



## DG-MT

**Materials:** polyethylene  
thermoplastic elastomer (TPE)

**Colour:** light grey (RAL 7035)

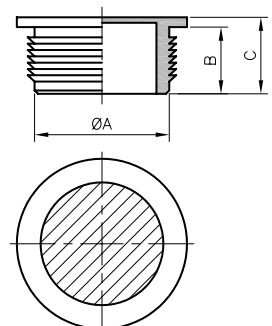
**Operating temperatures:** -40 to +80°C

**Protection rating:** IP 66 according to EN 60 529

**Application:** round membrane grommet in TPE to clip in that allows single cables, flat cables or several cables of small diameters to pass through it.



type	article number	Ø cable max. (mm)	Ø A mm	B mm	C mm	Ø boring mm	pcs
DG-MT 16	0133 0611 025	9	16	9,5	11	16,5	100
DG-MT 20	0133 0612 025	13	20	9,5	11	20,5	100
DG-MT 25	0133 0613 025	18	25	9,5	11	25,5	100
DG-MT 32	0133 0614 025	25	32	9,5	11	32,5	100



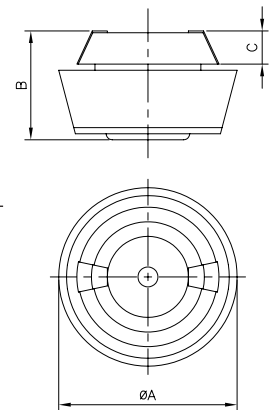
**PLIOFIX**

**Material:** TPE and Polyamide 6.6  
**Colours:** black  
 grey (RAL 7035)  
**Operating temperatures:** -20 to +125°C  
**Protection rating:** IP 65 / IP 67

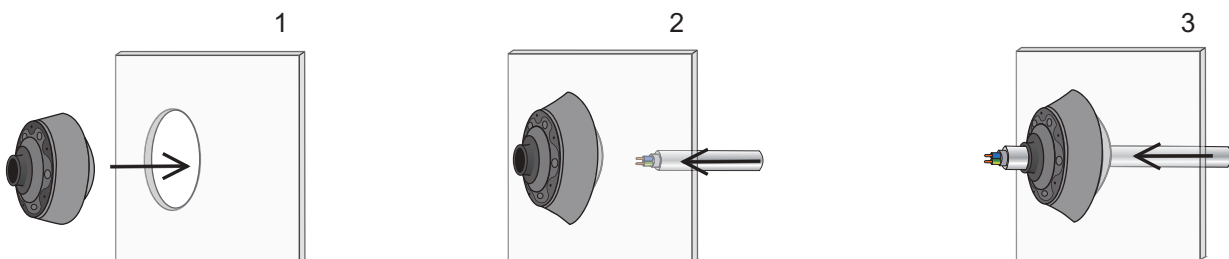
**Application:** they allow the passage of cables or conduits through their membranes allowing a dust free fit. They combine the advantages of grommets and a gland. They are in particular compact parts offering ease of use and speedy assembly.



type	article number		cable-Ø mm		hole-Ø mm	metal thickness mm	Ø A mm	B mm	C mm	 pcs
	black 010	grey 025	IP 65	IP 67						
<b>PLIOFIX M20</b>	0144 0603 010	0144 0603 025	4-11	7-11	20,5	2-5	29,3-34,5	17-20	5,7	50
<b>PLIOFIX M25</b>	0144 0604 010	0144 0604 025	4-13	7-13	25,5	2-5	34,3-40	17-20	5,7	50



**Instructions**





**PLIOCAP**

<b>Materials:</b>	PE	PP	PA6.6
<b>Temperatures (°C):</b>	-50 to +85	-40 to +85	-40 to +110
<b>Self-extinguishing:</b>	-	-	V2 UL94
<b>Dielectric strength:</b>	>16	>20	26
<b>Colours:</b>	black - grey		

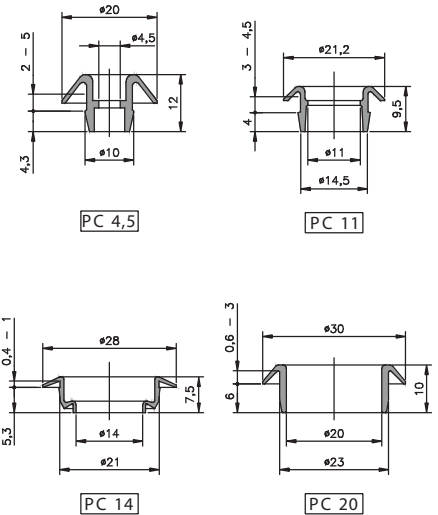
**Application:** The grommets change angular holes into fully isolated clean and smooth openings. They isolate and protect electric cables passing through a wall. The general version (PC -U) allows cables from Ø 2,6 to 25,2 mm passing through it.

The caps (PC -F) designed to close off unused entries. Simple, fast and safe use.



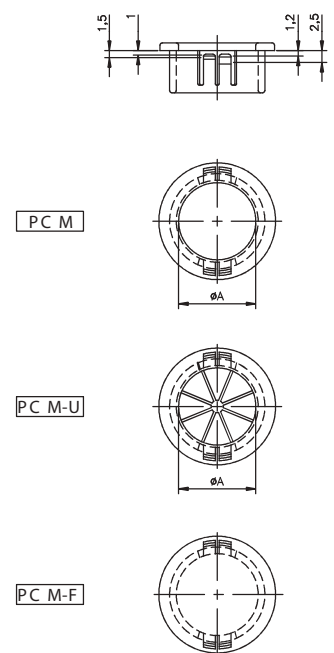
**• Grommets (difficult to remove)**

type	article number		quality		dimensions (mm)			quantity
	black 010	grey 013	PE	PP	punching Ø	cable Ø	wall width	
PC 4,5	0143 0004 010	0143 0004 013	X		10	4,5	2 - 5	500
PC 11	0143 0002 010	0143 0002 013	X		14,5	11	3 - 4,5	500
PC 14	0143 0001 010	0143 0001 013		X	21	14	0,4 - 1	500
PC 20	0143 0003 010	0143 0003 013		X	23	20	0,6 - 3	100



**• Grommets (easy removal) - Quality PA 6.6**

type	article number		punching Ø	dimensions (mm)		wall width	quantity
	black 010	grey 013		Ø A			
<b>Standard grommets</b>							
PC M16	0143 0010 010	0143 0010 013	16	12,2		1 - 2,5	100
PC M20	0143 0012 010	0143 0012 013	20	16,2		1 - 2,5	100
PC M25	0143 0014 010	0143 0014 013	25	20,2		1 - 2,5	50
PC M32	0143 0016 010	0143 0016 013	32	25,2		1 - 2,5	50
<b>Universal grommets</b>							
PC M16-U	0143 0018 010	0143 0018 013	16	12,2		1 - 2,5	100
PC M20-U	0143 0019 010	0143 0019 013	20	16,2		1 - 2,5	100
PC M25-U	0143 0020 010	0143 0020 013	25	20,2		1 - 2,5	50
PC M32-U	0143 0021 010	0143 0021 013	32	25,2		1 - 2,5	50
<b>Caps</b>							
PC M16-F	0143 0011 010	0143 0011 013	16	-		1 - 2,5	100
PC M20-F	0143 0013 010	0143 0013 013	20	-		1 - 2,5	100
PC M25-F	0143 0015 010	0143 0015 013	25	-		1 - 2,5	50
PC M32-F	0143 0017 010	0143 0017 013	32	-		1 - 2,5	50



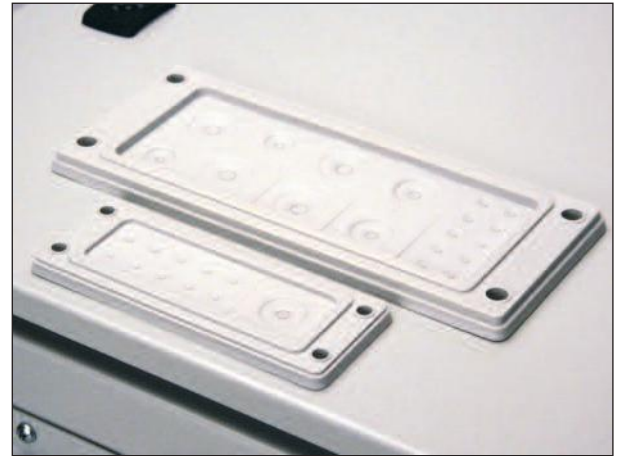
### FL13


**Material frame:** PP glass fibre reinforced  
**Material insert:** TPE  
**Colour :** light grey (RAL 7035)  
**Protection index:** IP 65  
**Operating temperatures:** -20 to +125°C  
**Certification:** EN 60529:1991+A1 EN 60670-1:2005

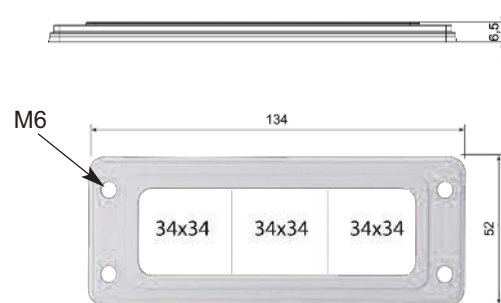
**Applications:** space saving wiring system very easy to mount for fast, discreet and aesthetic installation.

Modular solution, adaptable to most needs, and evolving even after the installation (by changing the inserts).

IP65 to ensure protection against dust and moisture.



type	art. no.	dimensions mm	passage	
<b>Frame</b> FL13/404	0144 0650 025	134 x 52	-	10
<b>Insert</b> INS-FL13/415	0144 0641 025	34 x 68	2x M20 (6-13 mm)	10
<b>Insert</b> INS-FL13/416	0144 0642 025	34 x 68	10x 4-10 mm	10
<b>Insert</b> INS-FL13/417	0144 0643 025	34 x 34	1x M20 (6-13 mm)	10
<b>Kit</b> K-FL13/405	0144 0630 025	-	1x M20 10x 4-10 mm	10



A8/2-01



A20/7-02



A20/7-03



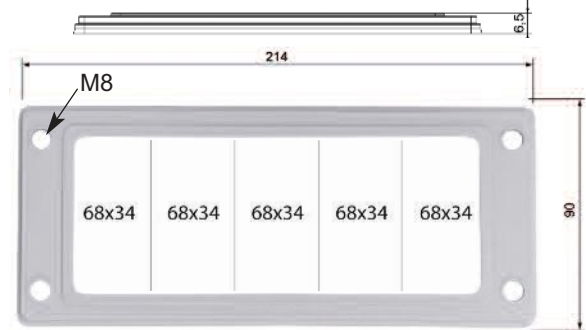
A22/5-04





## FL21

**Material frame:** PP glass fibre reinforced  
**Material insert:** TPE  
**Colour :** light grey (RAL 7035)  
**Protection index:** IP 65  
**Operating temperatures:** -20 to +125°C  
**Certification:** EN 60529:1991+A1 EN 60670-1:2005  
**Applications:** space saving wiring system very easy to mount for fast, discreet and aesthetic installation.  
 Modular solution, adaptable to most needs, and evolving even after the installation (by changing the inserts).  
 IP65 to ensure protection against dust and moisture.



type	art. no.	dimensions mm	passage	
<b>Frame</b> FL21/400	0144 0680 025	214 x 90	-	10
<b>Insert</b> INS-FL21/406	0144 0670 025	68 x 68	2x M25 (8-17 mm) 2x M16 (5-10 mm)	10
<b>Insert</b> INS-FL21/408	0144 0672 025	68 x 68	9x 7-14 mm	10
<b>Insert</b> INS-FL21/411	0144 0675 025	68 x 34	2x 8-17 mm	10
<b>Insert</b> INS-FL21/412	0144 0676 025	68 x 34	2x M20 (6-13 mm)	10
<b>Insert</b> INS-FL21/413	0144 0677 025	68 x 34	10x 4-10 mm	10
<b>Kit</b> K-FL21/402	0144 0660 025	-	2x (M25 M20) 30x 4-10 mm	10
<b>Kit</b> K-FL21/403	0144 0661 025	-	18x 7-14 mm 10x 4-10 mm	10



Operating instruction in video





# PLIO® strain relief bushes in flexible PVC



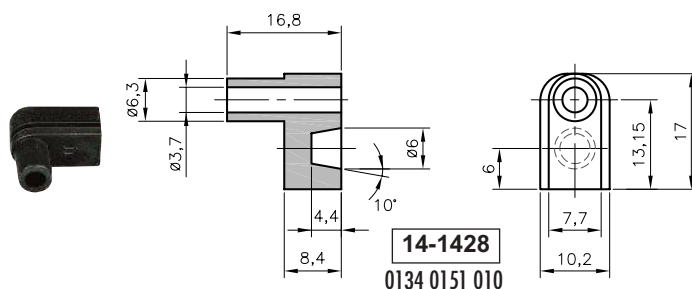
PLIO®  
-30 to +70°C



type	article number	
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### Protective strain relief bushes PLIO in PVC

14-542 PVC	0134 0001 010	100
14-581 PVC	0134 0004 010	100
14-582 PVC	0134 0005 010	100
14-583 PVC	0134 0006 010	100
14-908 PVC	0134 0010 010	100



**14-1428**  
0134 0151 010

### Metal clamp for bushes

14-542, 14-582, 14-583, 14-908		
16-900	0684 0054 000	100

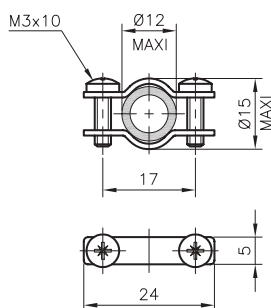


### Special strain relief bushes PLIO

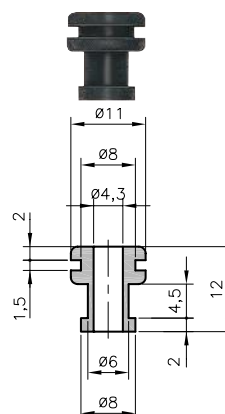
14-1431 PVC	0134 0102 010	100
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### Strain relief bushes PLIO

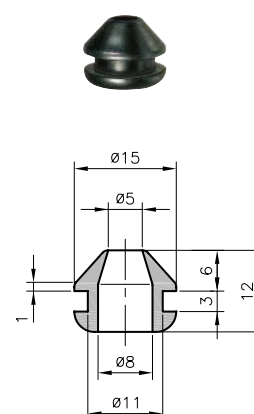
14-1017 PVC	0132 0910 010	100
14-1428 PVC	0134 0151 010	100



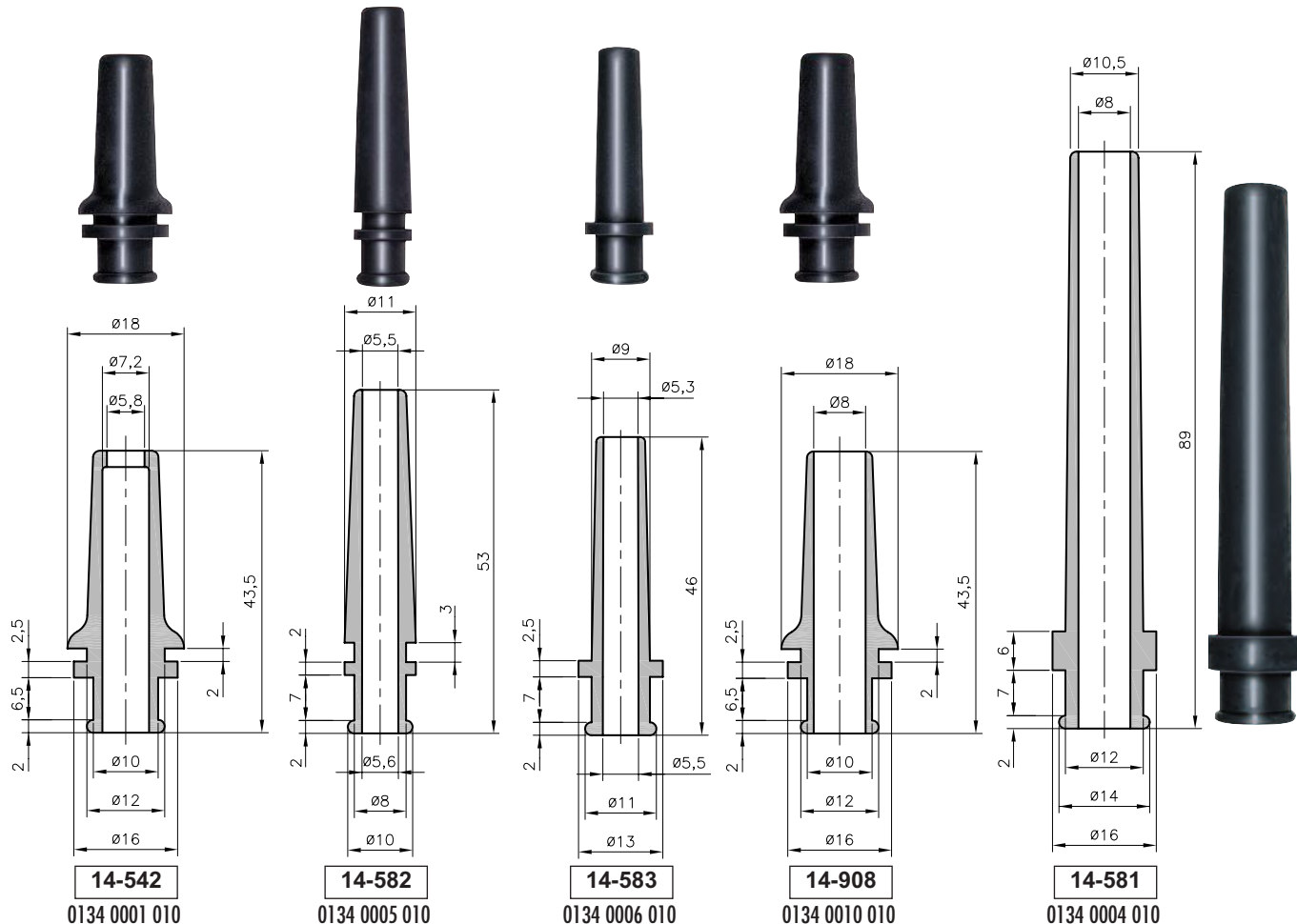
**16-900**  
0684 0054 000



**14-1017**  
0132 0910 010



**14-1431**  
0134 0102 010



**14-542**  
0134 0001 010

**14-582**  
0134 0005 010

**14-583**  
0134 0006 010

**14-908**  
0134 0010 010

**14-581**  
0134 0004 010



# SES strain relief bushes DM

## in Polyamide 6 black and white

### for torsional protection

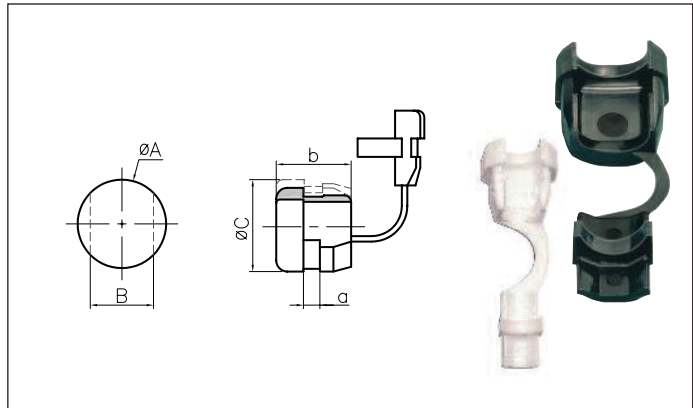




DM-SES

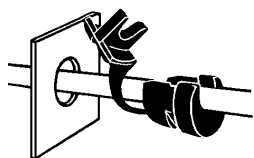


#### DM-SES

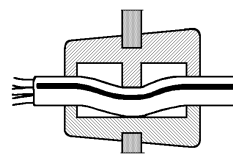
**Material:** polyamide 6  
**Colours:** black - white  
**Operating temperatures:** -20 to +70°C  
**Tensile strength at break:** 80 MPa  
**Ultimate elongation:** > 50%  
**Dielectric strength:** 60 kV/mm  
**Flame resistance:** V2 UL94 (internal test)  
**Application:** for passing a cable through a wall with cable clamp.



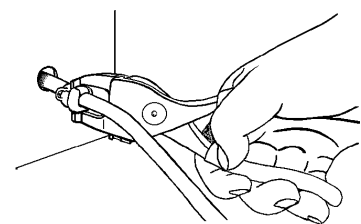
type	article number		dimensions of the cables (mm)		dimensions (mm)					
	black 010	white 001	Ø PVC insulation	Ø rubber insulation	Ø A	B	bore a b		Ø C	
<b>round cables</b>										
DM 2	0131 0012 010	0131 0012 001	3 ... 4,5	3 ... 4,5	9,5	8,5	1,7	10,3	11	100
DM 2L	0131 0032 010	0131 0032 001	3 ... 4,5	3 ... 4,5	9,5	8,5	3,1	10,3	11	100
DM 4	0131 0001 010	0131 0001 001	5 ... 6,5	5 ... 7	13	11,5	2,5	12	14	100
DM 5	0131 0010 010	0131 0010 001	6,5 ... 7,5	6,5 ... 7,5	13	11,5	2,5	11	14	100
DM 6	0131 0002 010	0131 0002 001	6,6 ... 8	7,1 ... 9	16	14	3,5	17	18	100
DM 7	0131 0003 010	0131 0003 001	8,1 ... 10	9,1 ... 11	22,5	21	3,2	20	25	100
DM 8	0131 0004 010	0131 0004 001	10,1 ... 12,5	11,1 ... 14	22,5	21	3,6	22	22	100
<b>flat cables</b>										
			H x W	H x W	Ø A	B	a	b	Ø C	
DM 2P	0131 0022 010	0131 0022 001	3 x 5	3 x 5	9,5	8,5	1,7	10,3	11	100
DM 2LP	0131 0042 010	0131 0042 001	3 x 5	3 x 5	9,5	8,5	3,1	10,3	11	100
DM 4P	0131 0020 010	0131 0020 001	3 x 7,6	3,8 x 7,1	13	11,5	2,8	10,5	14	100
DM 6P	0131 0021 010	0131 0021 001	5 x 9	5 x 9	16	14	3	17	18	100



Round bore (ØA)  
 For torsional protection of strain relief grommets, an oblong bore (B) is required.




principle of cable clamping



#### • DM application tool

Rack and pinion pliers with adjustable jaws to apply all types of strain relief grommets DM-SES for small or mid-sized series.

type	article number	characteristics		
		length (mm)	weight (g)	
R 29	0655 0001 000	180	270	1



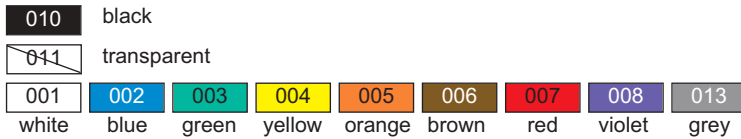


**PLIO-PVC**

**Material:** PVC  
**Operating temperatures:** -25 to +75°C  
**Hardness Shore A:** 70 +/- 5  
**Ultimate elongation:** 350%  
**Dielectric strength:** >20 kV/mm  
**Flame resistance:** HB UL94



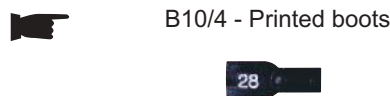
Standard colours:



Example for order:

code group	detail article	code colours
010	50xxx	xxx

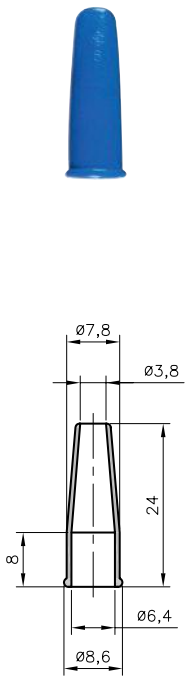
type	black	article number	colours	for clips	cable Ø mm	length of the boot mm	
	010	transparent 011					
<b>for female push-on-terminals (right)</b>							
B-3 PVC	0105 0007 010	0105 0007 011	0105 0007 ***	2,8	2,8	5,5	500
B-4 PVC	0105 0022 010	0105 0022 011	0105 0022 ***	4,8	3,2	7	500
B-5 PVC	0105 0003 010	0105 0003 011	0105 0003 ***	5 AMP	4,5	8	500
B-6 PVC	0105 0001 010	0105 0001 011	0105 0001 ***	6,3	3,6	8	500
BL-6 PVC	0105 0010 010	0105 0010 011	-	6,3	3,2	11	500
BK-6 PVC	0105 0011 010	0105 0011 011	-	6,3	3,2	6	500
B-PVC	0105 0004 010	0105 0004 011	0105 0004 ***	6,3	4	8	500
BM-6 PVC	0105 0012 010	0105 0012 011	-	6,3	5	11	500
BN-6 PVC	0105 0014 010	0105 0014 011	-	6,3	5	9	500
<b>for male push-on-terminals (right)</b>							
BW-6 PVC	0105 0002 010	0105 0002 011	0105 0002 ***	6,3	3,6	5,5	500
BF-6 PVC	0105 0023 010	0105 0023 011	0105 0023 ***	6,3	3,6	11	500
<b>for female flag push-on-terminals</b>							
BE-6 PVC	0105 0005 010	0105 0005 011	0105 0005 ***	6,3	3,6	13,7	500



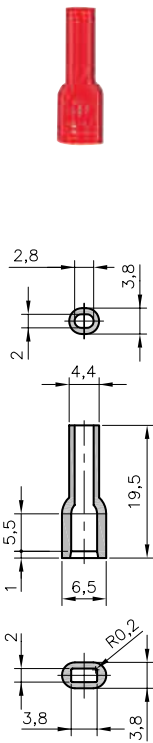
B10/4 - Printed boots

D6/3-02 - Clips

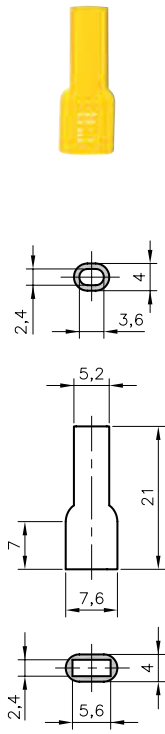




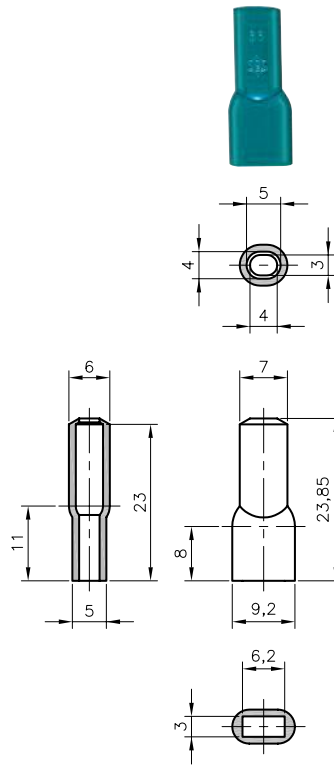
**B**  
0105 0004 xxx



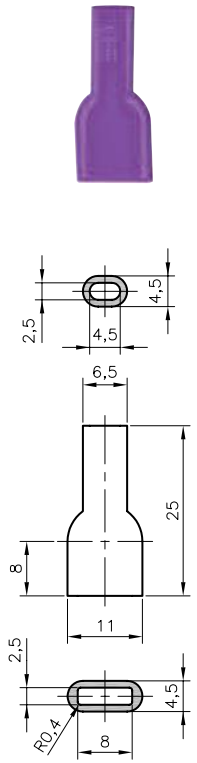
**B-3**  
0105 0007 xxx



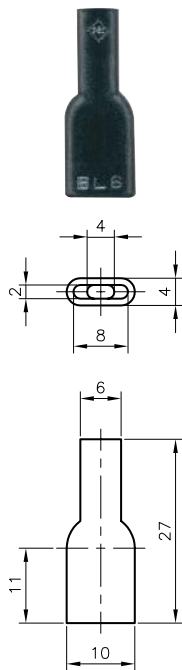
**B-4**  
0105 0022 xxx



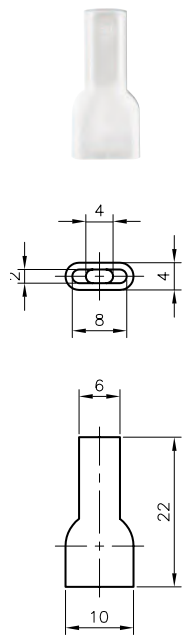
**B-5**  
0105 0003 xxx



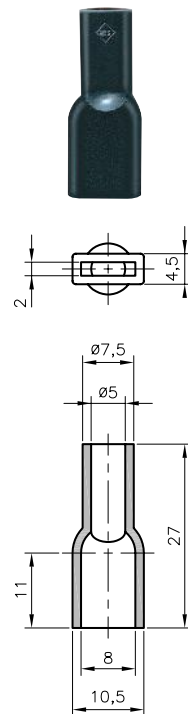
**B-6**  
0105 0001 xxx



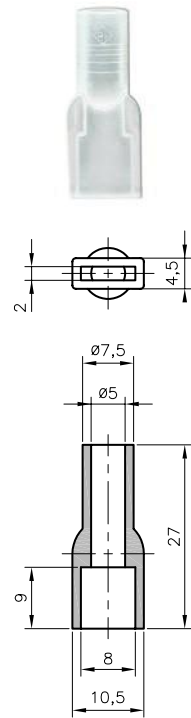
**BL-6**  
0105 0010 xxx



**BK-6**  
0105 0011 xxx



**BM-6**  
0105 0012 xxx



**BN-6**  
0105 0014 xxx





**PLIO**

Materials:	PE	PA 6	PA 6.6	PP
Colours:	natural	natural	natural	natural or black
Operating temperatures:	-50 to +55°C	-20 to +70°C	-40 to +110°C	-20 à +65°C
Ultimate elongation:	500%	>50%	300%	>150%
Dielectric strength:	-	60 kV/mm	26 kV/mm	50kV/mm
Flame resistance:	-	V2 UL94	V2 UL94	-



type	artide number		for clips mm	cable Ø mm	length of the boot mm	 pcs
	black 010	natural 018				

**Terminale boots for straight female clips**

	PP	PE	PA6	PA6.6	PP				
BP-3	-	0105 0020 018	0105 0021 018	-	-	2,8	2,5	7,5	500
BP-6	-	0105 0008 018	0105 0009 018	-	-	6,3	-	9,5	500

**Removable caps for female clips flags - assembly after crimping**

	PP	PE	PA6	PA6.6	PP				
BXC-4	-	-	-	0105 0031 018	-	4,8	3,2	6,1	500
BX-6	0105 0018 010	0105 0017 018	-	0105 0016 018	-	6,3	3,2	11	500
BXC-6	0105 0026 010	0105 0024 018	-	0105 0025 018	0105 0026 018	6,3	3,2	8,5	500



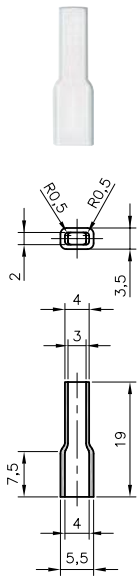
B10/4 - Printed boots

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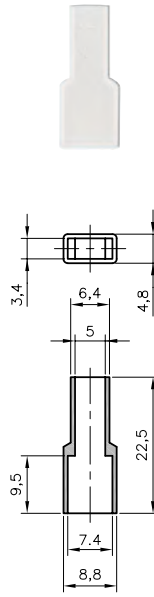
D6/3-02 - Clips



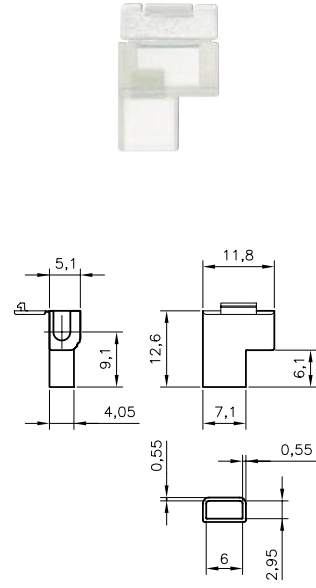
**PLIO® standard terminal boots**  
for special use



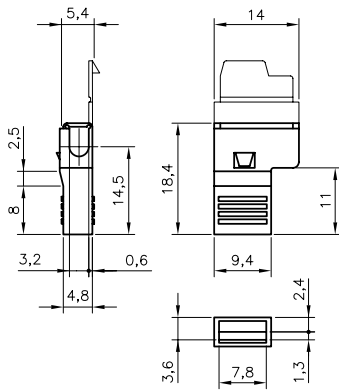
**BP-3**  
0105 0020 018  
0105 0021 018



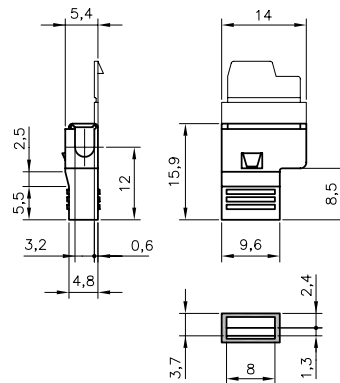
**BP-6**  
0105 0008 018  
0105 0009 018



**BXC-4**  
0105 0031 018



**BX-6**  
0105 0016 018  
0105 0017 018  
0105 0018 010



**BXC-6**  
0105 0024 018  
0105 0025 018  
0105 0026 xxx

# PLIO® standard terminal boots BA for application after crimping



PLIO®



## PLIO BA

**Material:** polypropylene  
**Operating temperatures:** -25 to +90°C (+120°C short time)  
**Ultimate elongation:** 30%  
**Dielectric strength:** >20 kV/mm

**Application:** our PLIO-BA boots can be applied over precrimped terminals, therefore they can be used with confidence on automatic application machines.



Standard colours:

001	002	003	004	005	006	007	010	013	015	017
white	blue	green	yellow	orange	brown	red	black	grey	pink	lila

Example for order:

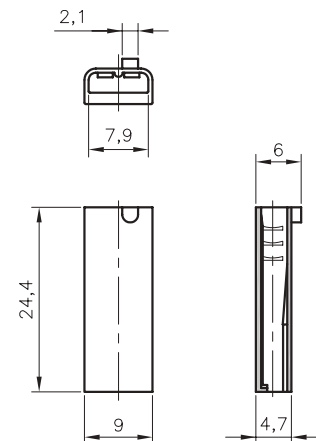
code group	detail article	code colour
0651	0001	xxx

type	article number	for clips mm	cable Ø mm	
BA-6 PP	0651 0001 ***	6,3	3,2	500

Standard colour:

018
natur

type	article number	for clips mm	cable Ø mm	
BA-6 PP nat.	0651 0002 018	6,3	3,2	500



## Assembly instruction

