



# A21

Moulded 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 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.

**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.**

**It is also halogen free.**

# Standard grommets DK-TPE in black PLIOPRENE TPE



PLIOPRENE TPE




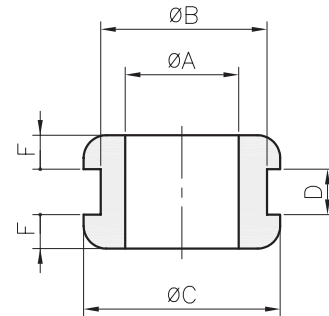
## DK-DKF-DKP TPE

<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



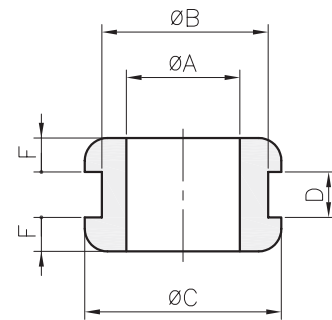
### • Grommets DK-TPE with hole

type	article number	dimensions (mm)					F	
		A	B	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	




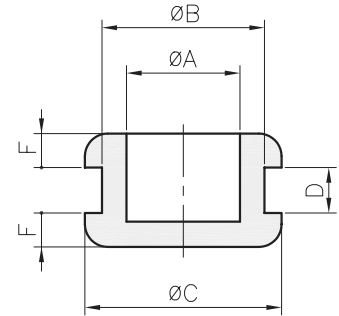
• Grommets DK-TPE with hole

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	




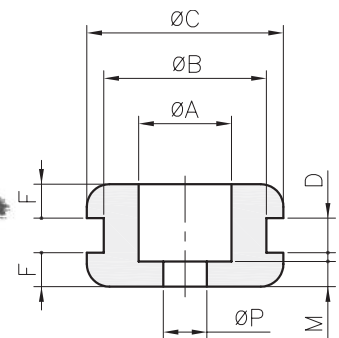
• **Grommets DKF-TPE, blind (with membrane to perforate)**

type	article number	dimensions (mm)					
		A	B	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)							
		A	B	C	D	F	M	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 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



Neu  
Neu



**DG-TPE**

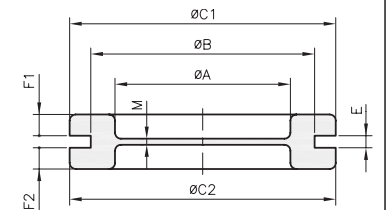
**Material:** thermoplastic rubber  
**Colours:** black - light grey (RAL 7035)  
**Operating temperatures:** -50 to +125°C  
**Hardness Shore A:** 55 ± 5  
**Tensile strength at break:** > 4,5 MPa  
**Ultimate elongation:** > 300 %  
**Dielectric strength:** 35 kV/mm  
**Flame resistance:** HB UL94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



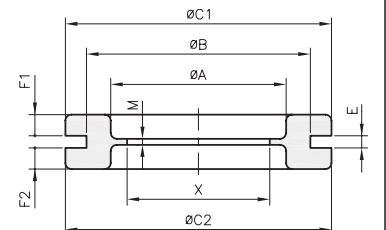
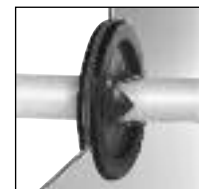
**• Membrane grommets**

type	article number		dimensions (mm)								M	100
	black 010	grey 025	A	B	C1	C2	E	F1	F2			
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)**

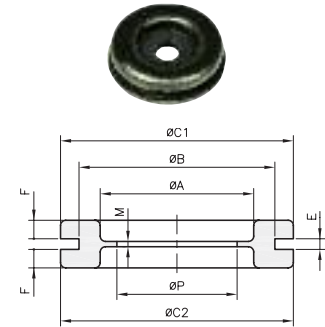
type	article number	dimensions (mm)								M	X	100
	black 010	A	B	C1	C2	E	F1	F2				
DGC-TPE 9	0144 0211 010	9	15	20	18	2	2,5	2,5	1	8	100	
DGC-TPE 11	0144 0221 010	11	18	22,5	21,5	2	2,5	2,5	1	10	100	
DGC-TPE 13,5	0144 0231 010	13,5	20	24	24	2	2,5	2,5	1	10	100	
DGC-TPE 16	0144 0241 010	16	22	27,5	26	2	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	





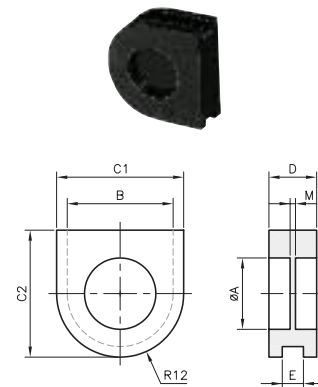
• Grommets with perforated membrane (other cuts upon request)

type	article number	dimensions (mm)								
	black	A	B	C1	C2	E	F	M	P	
	010									
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	dimensions (mm)							
	black	A	B	C1	C2	D	E		M
	010								
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




# Strain relief grommets in PLIOPRENE TPE

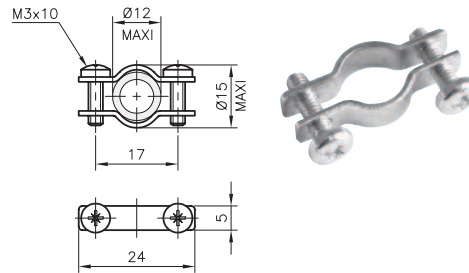


PLIOPRENE TPE

-50 to +125°C

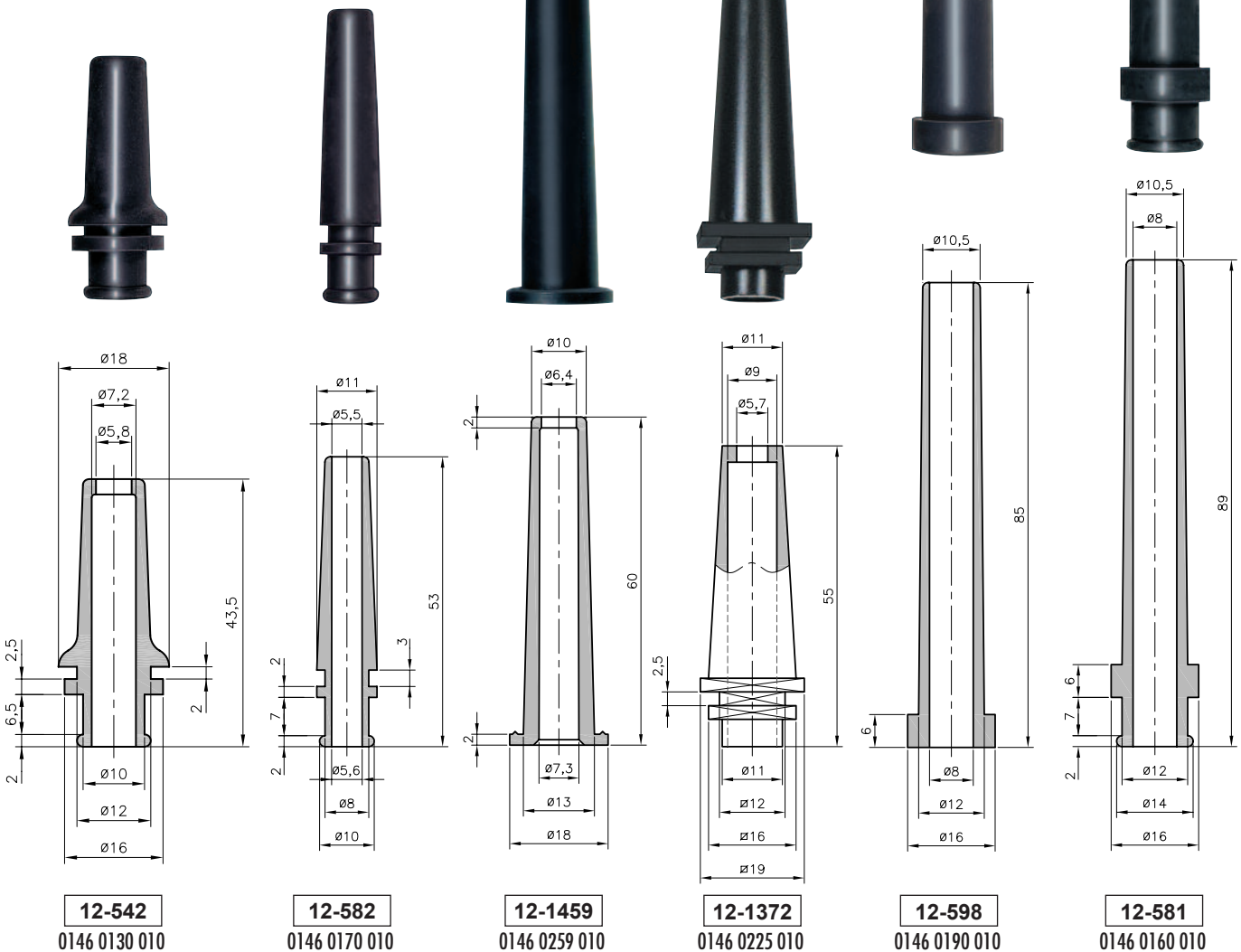


type	artide number	
12-542 TPE	0146 0130 010	100
12-552 TPE	0146 0140 010	100
12-553 TPE	0146 0150 010	100
12-581 TPE	0146 0160 010	100
12-582 TPE	0146 0170 010	100
12-583 TPE	0146 0180 010	100
12-598 TPE	0146 0190 010	100
12-599 TPE	0146 0200 010	100
12-600 TPE	0146 0210 010	100
12-908 TPE	0146 0220 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



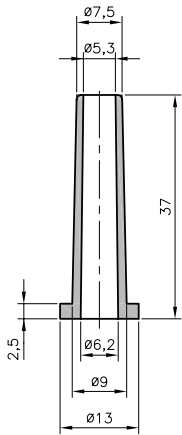


**Strain relief grommets**  
in PLIOPRENE TPE

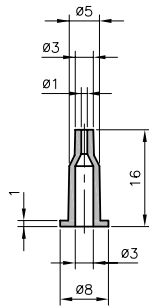


**PLIOPRENE TPE**

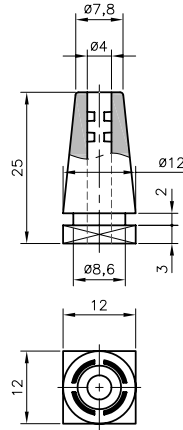
**-50 to +125°C**



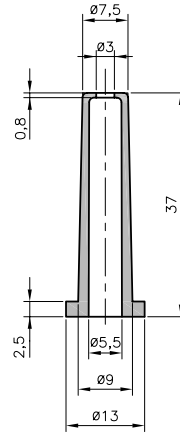
**12-1466**  
0146 0251 010



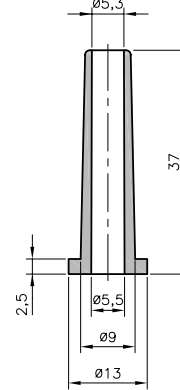
**12-1460**  
0146 0260 010



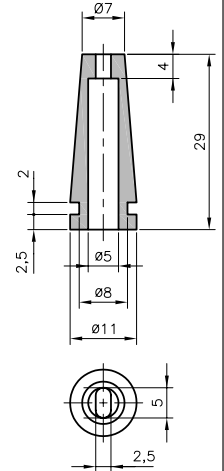
**12-1392**  
0146 0240 010



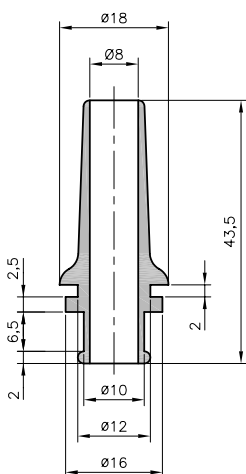
**12-1462**  
0146 0250 010



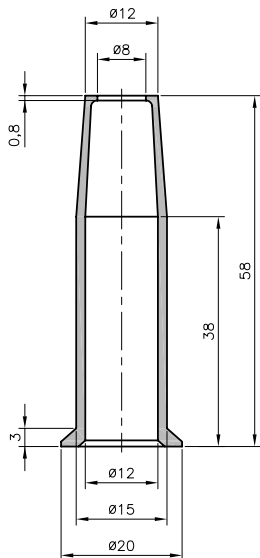
**12-600**  
0146 0210 010



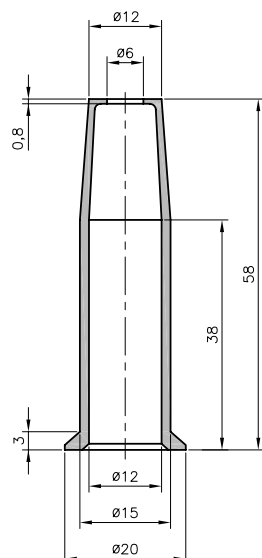
**12-1374**  
0146 0230 010



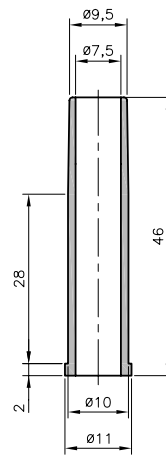
**12-908**  
0146 0220 010



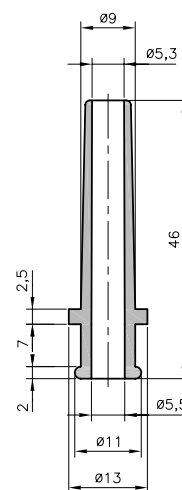
**12-552**  
0146 0140 010



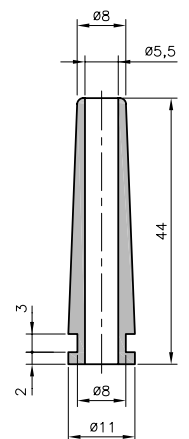
**12-1584**  
0146 0261 010



**12-553**  
0146 0150 010



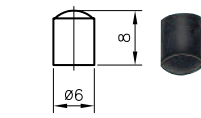
**12-583**  
0146 0180 010



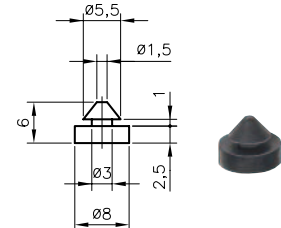
**12-599**  
0146 0200 010

• 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



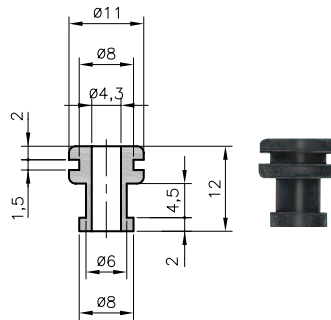
**12-1086**  
0146 0010 010



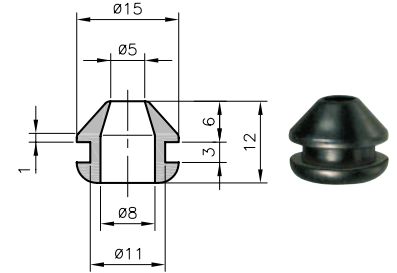
**12-1310**  
0146 0020 010

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

type	artide number	
<b>Special grommet</b>		
12-1017 TPE	0146 0310 010	100
12-1431 TPE	0146 0330 010	100



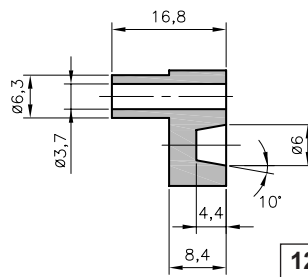
**12-1017**  
0146 0310 010



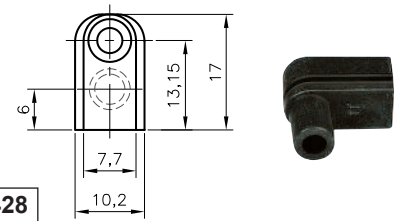
**12-1431**  
0146 0330 010

Cable grommet

12-1428 TPE	0146 0401 010	100
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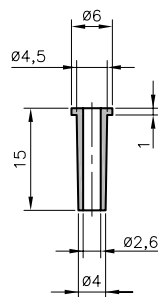


**12-1428**  
0146 0401 010

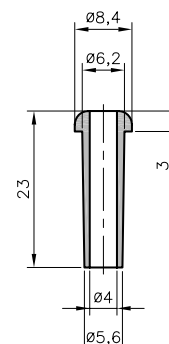


• Bushes in Plioprene very flexible, black (-40 to +70°C)

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




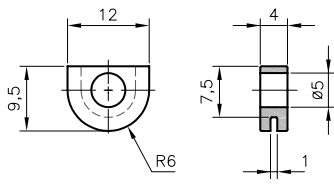

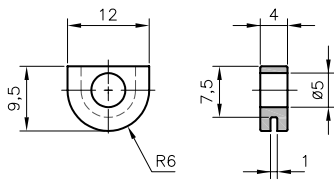


**12-387**  
0146 0110 010





**12-407**  
0146 0120 010

These bushes can be easily applied with our sleeve expanders (see page D1/1).

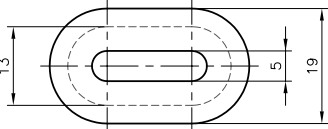
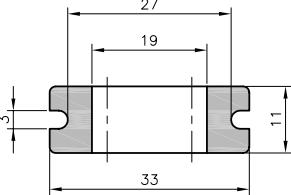
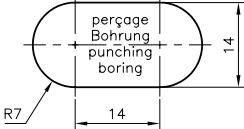
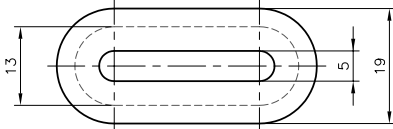
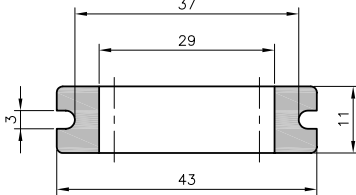
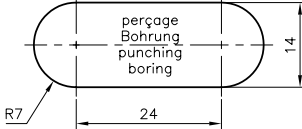
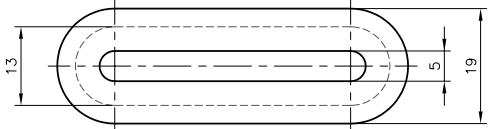
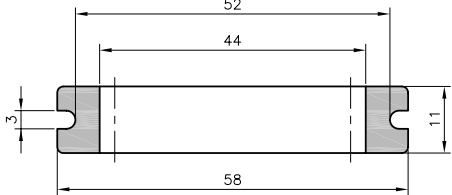
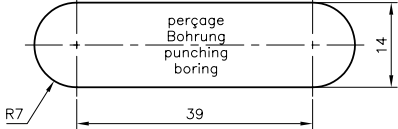
**• Special grommet in black Plioprene**

type	artide 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**

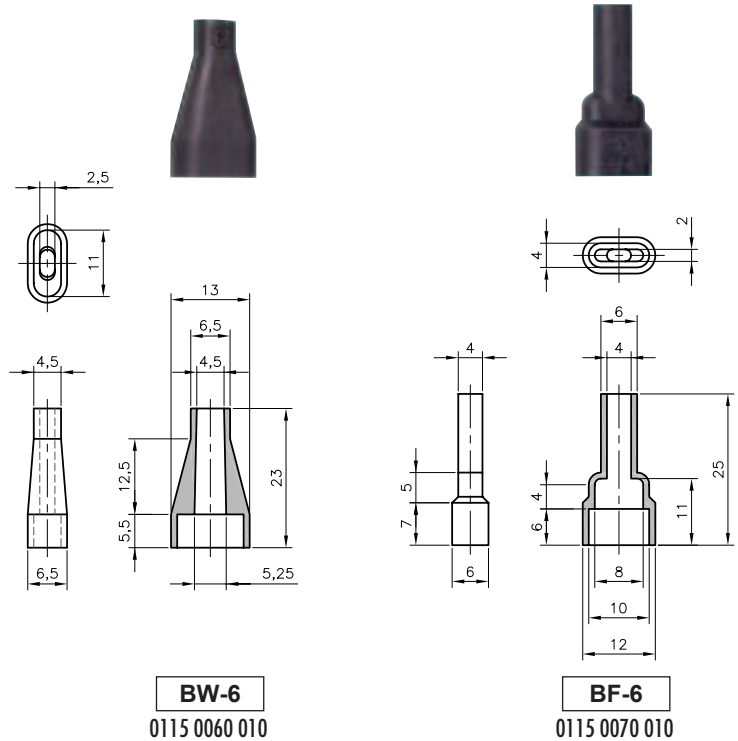
type	artide number		
DO-TPE 19/27/33/3	0144 0351 010	100	
DO-TPE 29/37/43/3	0144 0352 010	100	
DO-TPE 44/52/58/3	0144 0353 010	100	

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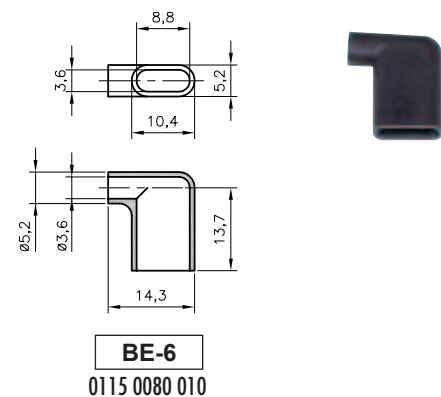
**• Boots for male push-on-terminals (right)**

type	article number	for crimps	wires Ø 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



**• Boots for female flag crimp terminals**

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



D6/3-02 - Receptacle



# Boots in black PLIOPRENE TPE




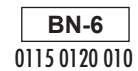
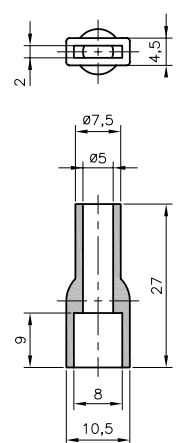
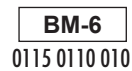
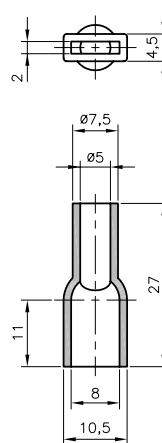
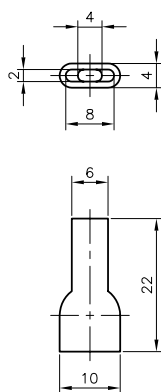
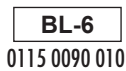
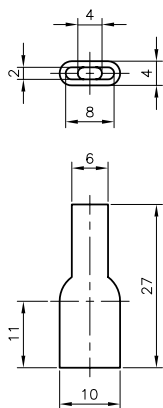
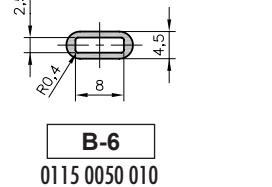
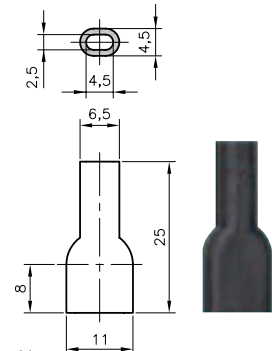
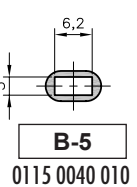
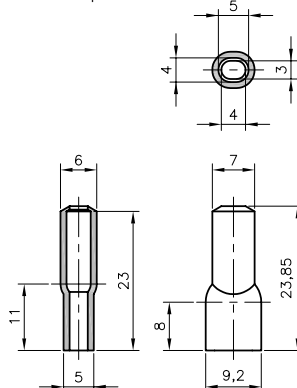
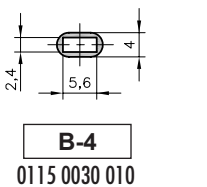
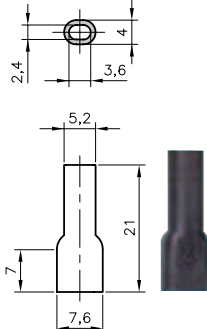
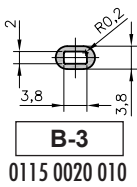
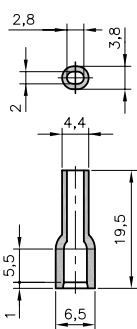
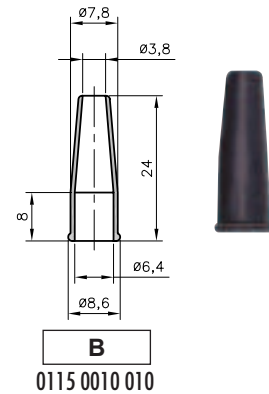
PLIOPRENE TPE


-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



 D6/3-02 - Receptacle



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