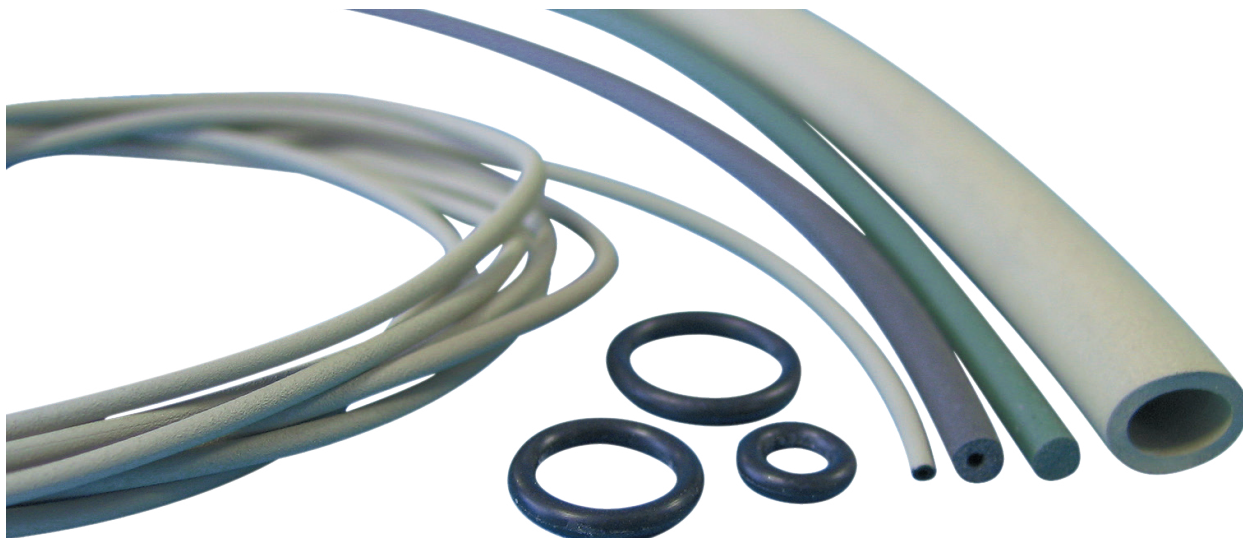


O-PROFILES 7900

For EMI shielding applications in grooves

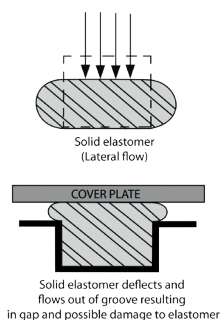


Several types of O-profiles have been developed for different applications, each with its own advantages. O-profiles were originally designed for high-performance shielding, mainly for military applications. They are used when environmental sealing and EMI screening are required, and where there is not much space.

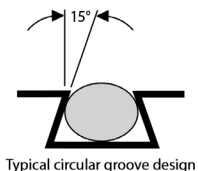
Three kinds of extrusion types are available: **1: hollow, 2: solid, 3: Cell Rubber.** These extrusion cores can be covered with metalized fabric foil or they can be made out of conductive rubber. For optimal shielding performance a compression of 5-10% is recommended for solid elastomer's and 10-50% for hollow extrusions and sponge rubbers.

COMPRESSION

Solid elastomer's cannot be compressed much. They are easily deformed but the volume does not change as would be the case with sponge elastomer (EPDM, Neoprene) so that allowance for material flow must be considered in the groove design.



The figure below shows a groove design. This is a mechanically retain circular cross-section gaskets by side friction.



BENEFITS

- Easy to fit into grooves
- Deflection up to 50%
- Low closure force

OPTIONS (ON REQUEST)

- Cut into accurate lengths or endless O-rings
- Drop-out prevention fixtures
- UL94V-0 flame-retardant version
- High temperature-resistant Silicone core (up to 220 °C)
- Fluorosilicone (silver aluminum, silver copper, nickel, nickel graphite) for applications with chemicals

EXTRUSION TYPES



SPECIAL MATERIALS (ON REQUEST)

- Silicone Carbon
- Fluorosilicone Nickel Graphite
- Silicone Nickel Graphite Flame Retardant
- Silicone Silver Aluminum
- Fluorosilicone Silver Aluminum
- Fluorosilicone Nickel
- Silver Plated Nickel
- Silver Glass

TECHNICAL DETAILS

Conductive material	Conductive fabric	Amucor	Graphite	Nickel graphite	Silver aluminum
Operating Temp	-	-	+160	+160	+160
Range (°C)	-	-	-50	-55	-55
Color	Gray	Silver	Black	Dark Gray	Beige
Shore Hardness (A +/-5)	-	-	60	60	65
Volume Resistivity (ohms)	-	-	2.2	0.04	0.008
Specific Gravity (+/- 0.25)	-	-	2.0	2.0	2.0

» O-PROFILE 7900

SHIELDING PERFORMANCE

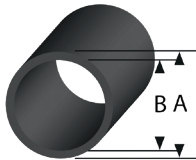
Conductive material	Conductive fabric	Amucor	Graphite	Nickel graphite	Silver aluminum
10 MHz	N/A	N/A	30	115	111
100 MHz	60	65	65	121	120
400 MHz	98	110	60	119	120
1 GHz	94	108	N/A	122	121
2 GHz	91	105	40	122	119
6 GHz	90	102	N/A	115	115
10 GHz	90	100	30	114	112
18 GHz	N/A	N/A	N/A	106	105

MATERIAL OPTIONS

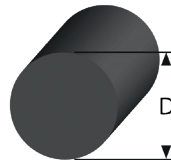
Series	Material	Extrusion types	Cover options	Code (old)
7900NEO	Neoprene	2: Solid 3: Sponge rubber	T: Conductive textile	79-2-1-2 79-3-1-2
7900SIL	Silicone	1: Hollow 2: Solid 3: Sponge rubber	T: Conductive textile	79-1-2-1 79-2-2-1 79-3-2-1
7900EPDM	EPDM	2: Solid 3: Sponge rubber	T: Conductive textile	79-2-4-2 79-3-4-2
7900SPA	Silver plated aluminium rubber	1: Hollow 2: Solid	-	79-1-5-3 79-2-5-3
7900NIG	Nickel/graphite filled rubber	1: Hollow 2: Solid	-	79-1-5-4 79-2-5-4
7900GRA	Graphite filled rubber	1: Hollow 2: Solid	-	79-1-5-5 79-2-5-5

STANDARD EXTRUSIONS

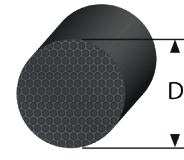
Type 1: Hollow



Type 2: Solid



Type 3: Cell rubber



Size	Hollow	
	Outside A (mm)	Inside B (mm)
0.9 X 0.3	0.9	0.3
1.2 X 0.5	1.2	0.5
1.6 X 0.5	1.6	0.5
1.8 X 0.5	1.8	0.5
1.9 X 0.7	1.9	0.7
2.0 X 0.5	2.0	0.5
2.0 X 0.8	2.0	0.8
2.4 X 0.8	2.4	0.8
2.4 X 1.0	2.4	1.0
2.6 X 1.5	2.6	1.5
3.0 X 0.5	3.0	0.5
3.0 X 0.8	3.0	0.8
3.0 X 1.0	3.0	1.0
3.0 X 1.6	3.0	1.6
3.2 X 0.8	3.2	0.8
3.2 X 1.1	3.2	1.1
3.2 X 1.5	3.2	1.5
3.5 X 0.8	3.5	0.8
3.5 X 1.6	3.5	1.6
3.6 X 1.5	3.6	1.5
4.0 X 1.1	4.0	1.1
4.0 X 1.3	4.0	1.3
4.0 X 1.6	4.0	1.6
4.0 X 2.0	4.0	2.0
4.1 X 2.0	4.1	2.0
4.5 X 1.6	4.5	1.6
4.8 X 2.4	4.8	2.4
5.0 X 1.6	5.0	1.6
5.0 X 3.0	5.0	3.0
5.5 X 1.6	5.5	1.6
5.5 X 3.2	5.5	3.2
6.0 X 1.6	6.0	1.6
6.0 X 3.2	6.0	3.2
6.0 X 4.0	6.0	4.0
6.4 X 1.6	6.4	1.6
6.4 X 3.2	6.4	3.2
8.0 X 5.0	8.0	5.0
8.0 X 6.0	8.0	6.0
9.0 X 6.4	9.0	6.4
9.5 X 6.4	9.5	6.4
10.0 X 7.0	10.0	7.0
10.0 X 8.0	10.0	8.0
12.0 X 8.0	12.0	8.0
15.0 X 12.0	15.0	12.0
16.0 X 12.0	16.0	12.0
20.0 X 16.0	20.0	16.0

Size	Solid
	Diameter (mm)
1.0	1.0
1.2	1.2
1.4	1.4
1.6	1.6
1.8	1.8
2.0	2.0
2.4	2.4
2.6	2.6
2.8	2.8
3.0	3.0
3.2	3.2
3.5	3.5
4.0	4.0
4.5	4.5
4.8	4.8
5.0	5.0
5.4	5.4
5.5	5.5
6.0	6.0
6.4	6.4
7.0	7.0
7.5	7.5
8.0	8.0
8.5	8.5
9.0	9.0
9.5	9.5
10.0	10.0
11.0	11.0
12.0	12.0
15.0	15.0
18.0	18.0
20.0	20.0

Size	Cell Rubber
	Diameter (mm)
2.1	2.1
3.0	3.0
3.5	3.5
4.0	4.0
4.5	4.5
5.0	5.0
5.5	5.5
6.0	6.0
6.5	6.5
7.0	7.0
7.5	7.5
8.0	8.0
9.0	9.0
9.5	9.5
10.0	10.0
11.0	11.0
12.0	12.0
15.0	15.0
18.0	18.0
20.0	20.0
22.0	22.0
25.0	25.0