

CONDUCTIVE RUBBER PROFILES 5750-P

Electrically conductive rubber profiles in general are known for its excellent weather, oxidation and ozone resistance



The rubber in these profiles is made conductive by means of small conductive metal particles, distributed throughout the rubber. It can provide an EMI-proof and a pressure watertight seal in narrow constructions.

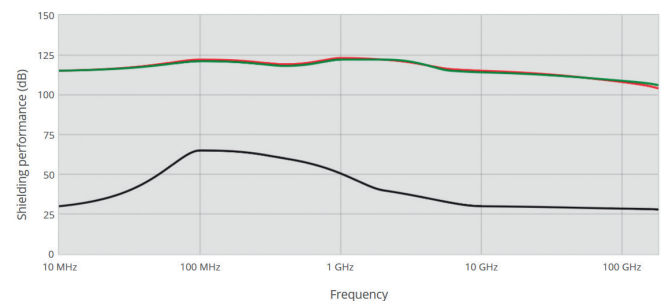
Electrically conductive rubbers are typically used for EMI applications. Also used for EMP protection, wave-guide applications and against static electricity. The rubber can be filled with silver, nickel, silvered glass, silvered aluminum or graphite (only for ESD). Commercial EMI applications often call for **Nickel-Graphite Conductive Rubber (Part number 5760)** or **Graphite Conductive Rubber (Part number 5755)** due to costs, whereas military and aerospace applications often call for **Silver Aluminum Silicone Conductive Rubber (Part number 5750)** to meet Mil-G-83528C specifications. In military or aerospace, fluorosilicone versions may also be used for its chemical and fuel resistance.

As the material shields high frequencies, electrically conductive rubber shows a shielding effect of 60 dB at 30MHz ~ 10GHz. Due to its excellent conductivity, grounding and EMI shielding effect, it is well suited for military communication equipment. The rubber can be manufactured in various shapes such as sheets, molded parts, die-cut, strips, o-rings, etc.

BENEFITS

- Excellent conductivity throughout the surface
- Excellent electromagnetic shielding effect
- Easy die-cutting, kiss-cutting and slitting
- Temperature range -60 to +185°C (under certain circumstances, tolerance can be up to 220°C)

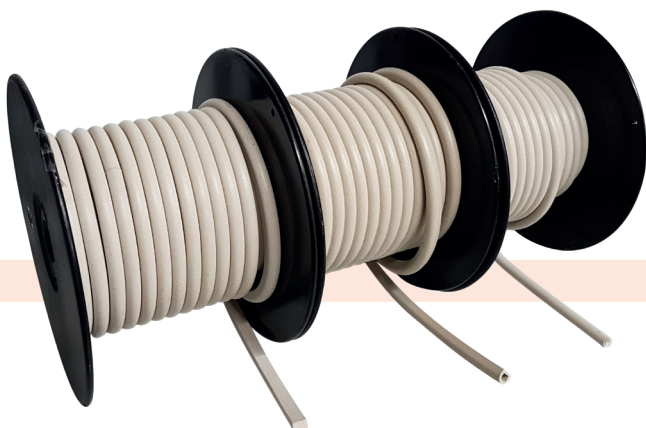
SHIELDING PERFORMANCE*



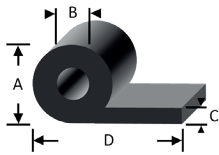
- 5750 - Silver Copper
- 5750 - Graphite
- 5760 - Nickel Graphite

TECHNICAL DETAILS AND SPECIFICATIONS

	5750 Silver plated aluminium	5755 Graphite	5760 Nickel Graphite
Conductive material	Ag/Al	Graphite	Ni-graphite
Filler	Ag/Al	Graphite	Ni-graphite
Base polymer	Silicone	Silicone	Silicone
Elongation, %, min.	90	50	50
Flame resistance, UL94 (horizontal)	HB	HB	HB
Flame resistance, UL94 (vertical)	V-0	V-0	V-0
Volume resistance, Ohm-cm (expression of conductivity)	0.008	1.8	0.05
Operating Temp Range (C)	+125 -55	+160 -50	+160 -55
Color	Dark Tan	Black	Dark Gray
Shore Hardness (A +/-5) ASTM D2240	65	60	60
Volume Resistivity (ohms) ASTM D991	0.005	2.2	0.04
Specific Gravity (+/- 0.25)	3.5	2.0	2.0

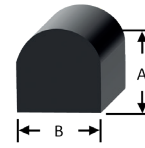


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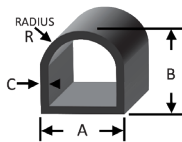
CONDUCTIVE P PROFILE (P)

Part number	A (mm)	B (mm)	C (mm)	D (mm)
5760-P-5.0-2.0-1.6-12.7	5.0	2.0	1.6	12.7
5760-P-5.0-2.0-1.6-21.6	5.0	2.0	1.6	21.6
5760-P-6.4-3.2-1.6-12.7	6.4	3.2	1.6	12.7
5760-P-6.4-3.2-1.6-15.9	6.4	3.2	1.6	15.9
5760-P-6.4-3.2-1.6-22.2	6.4	3.2	1.6	22.2
5760-P-7.9-4.8-1.6-22.2	7.9	4.8	1.6	22.2
5760-P-9.1-6.5-1.8-19.8	9.1	6.5	1.8	19.8



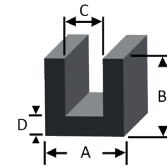
SOLID D (SD)

Part number	A (mm)	B (mm)
5760-SD-1.6-1.4	1.6	1.4
5760-SD-1.7-1.6	1.7	1.6
5760-SD-2.0-2.4	2.0	2.4
5760-SD-2.3-2.0	2.3	2.0
5760-SD-2.5-1.6	2.5	1.6
5760-SD-2.8-3.2	2.8	3.2
5760-SD-3.4-3.1	3.4	3.1
5760-SD-4.0-3.0	4.0	3.0
5760-SD-4.0-4.0	4.0	4.0
5760-SD-4.5-4.5	4.5	4.5
5760-SD-4.8-4.8	4.8	4.8



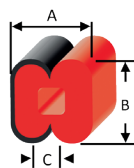
CONDUCTIVE HOLLOW D PROFILE (D)

Part number	A (mm)	B (mm)	C (mm)	R (mm)
5760-D-4.0-4.0-1.1-2.0	4.0	4.0	1.1	2.0
5760-D-4.8-4.7-1.3-2.4	4.8	4.7	1.3	2.4
5760-D-6.4-6.4-1.7-3.2	6.4	6.4	1.7	3.2
5760-D-7.9-7.9-1.3-4.0	7.9	7.9	1.3	4.0
5760-D-12.4-8.2-2.0-6.2	12.4	8.2	2.0	6.2



U CHANNEL PROFILE (U)

Part number	A (mm)	B (mm)	C (mm)	D (mm)
5760-U-2.4-2.5-0.9-0.8	2.4	2.5	0.9	0.8
5760-U-3.2-2.8-0.7-1.3	3.2	2.8	0.7	1.3
5760-U-3.2-5.7-0.5-2.0	3.2	5.7	0.5	2.0
5760-U-4.0-4.0-1.6-1.2	4.0	4.0	1.6	1.2
5760-U-4.5-4.0-1.2-1.9	4.5	4.0	1.2	1.9
5760-U-8.3-6.0-1.6-2.9	8.3	6.0	1.6	2.9



DD PROFILE WITH WATERSEAL (DD)

Part number	A (mm)	B (mm)	C (mm)
5760-DD-4.57-4.75-1.65	4.57	4.75	1.65

BENEFITS

- No reduction of the shielding properties in the splicing area
- Splicing rubber thin and conductive
- No flash, porosity or excess rubber at the joint after splicing
- Max increase of compression force in the splicing area 5%
- No excess splicing rubber inside hollow profiles
- Jointing point should stand for 10% stretch without mechanical damage
- Electrical resistance measure: Max 300 mΩ
- Available in rolls up to 1000 meters

ORDER EXAMPLE

Series	Profile	Size number
5750 : Silver plated aluminum 5755 : Graphite 5760 : Ni-graphite	P : P Profile D : Hollow D profile SD : Solid D profile U : U channel profile R : Rectangular profile DD : DD profile with water seal	See profile part numbers tables above
Tape code		
02 : Without self-adhesive (standard) 03 : With conductive self-adhesive (only recommended on small sizes)		