



Conductive – High Consistency Silicone Rubber (HCR)

Type – Silver coated Nickel filled. (Ag/Ni)

Characteristics

Vulcanised articles manufactured from this silver coated, nickel filled, conductive silicone rubber compound, typically used in military / aerospace applications, exhibit a unique combination of characteristics & properties. They are noted for their good flexibility, mechanical properties, excellent shielding / conductive properties & good processing characteristics. Suitable for moulding applications only.

Product Data

- Material Reference:** PR 640 Series – Moulding
- Special Features:**
- Designed to meet; MIL-G-83528 Type L
 - Suitable for the manufacture of parts for EMI/RFI electrical shielding applications
 - High performance in *non*-corrosive environments
 - Excellent electrical conductivity
 - Good EMP resistance
 - Service temperature range: –60°C to +125°C (excursions up to 150°C)

Colour: Tan (Natural)

Safety Information

Detailed safety specific information can be obtained from the Material Safety Data Sheets (MSDS), which are available upon request.

Physical Properties

Test	Standard	Units	Typical Values			
			50 +/- 5	60 +/- 5	70 +/- 5	80 +/- 5
Hardness	ASTM D2240	Shore A	50 +/- 5	60 +/- 5	70 +/- 5	80 +/- 5
Density	ASTM D792	g/cm ³	-	3.95	4.00	-
Tensile Strength	ASTM D412	MPa	-	2.10	2.00	-
Elongation @ Break	ASTM D412	%	-	230	180	-
Tear Strength	ASTM D624 C	kN/m	-	9	8	-
Compression Set: 70 Hrs @ 100°C	ASTM D395 (Method B)	%	-	29	29	-

Electrical Properties

Volume Resistivity	ASTM D991 – 89	Ohm/cm	-	0.006	0.005	-
Shielding Effectiveness:	MIL-G-83528					
200 KHz (H Field)		dB	-	70	70	-
100 MHz (E Field)		dB	-	120	120	-
500 MHz (E Field)		dB	-	120	120	-
2 GHz (Plane Wave)		dB	-	115	115	-
10 GHz (Plane Wave)		dB	-	110	110	-

Typical Cure Conditions

Press-cure	10 minutes @ 170°C
Post-cure	2 hours @ 150°C
Catalyst type	Dicumyl Peroxide or DHBP

This data is obtained from test pieces moulded in the laboratory and are intended as a guide. They should not be used in preparing specifications.

Disclaimer: The information & data contained herein is believed to be accurate & reliable. However, it is the user's responsibility to determine suitability for the application of intended use. Primasil Silicones Ltd make no warranties concerning fitness or suitability of its products for a particular use or purpose. Alterations may be made to the above information on the basis of further knowledge being obtained.