

Data Sheet Trishield Conductive Silicone Rubber Nolato 8950

Nolato 8950 is a conductive silicone rubber used to produce integrated EMI shielding gaskets by dispensing.

Nolato 8950 key properties:

- Typical gasket height from 1,3 mm to 3 mm.
- Recommended compression between 10 and 50%.
- Operating temperatures between -55°C and +125°C.
- Good adhesion to most metal and metallised surfaces.
- Low viscosity offers short cycle times in any dispensing machine.
- Thermal cure silicone.
- Material suitable for automotive applications.

Applications

Nolato 8950 is particularly suitable for production of gaskets on large series of aluminium castings when there is a demand of a gasket with excellent shielding properties. Typical applications include dispensed EMI shielding gaskets in automotive applications.

Typical Product Data

	Test procedure	Unit	8950
Base material			Silicone rubber
Conductive filler			Ni/C
Density, uncured		g/cm ³	1,6
Viscosity mixed. at shear rate 10 ^{s-1}	Nolato FOU-04/5	Pas	65
Electrical resistance	Nolato FOU-04/6	mOhm	150
Adhesion	Nolato FOU-04/7		Cohesive failure

Mechanical Properties

	Test procedure	Unit	8950
Density, cured	ISO 12154	g/cm ³	1,9
Hardness	ISO 48-4	Shore A	45
Tensile strength ¹⁾	ISO 37	MPa	1,2
Elongation at break	ISO 37	%	150
Tear strength ²⁾	ISO 34-1C	N/mm	8,0
Compression set, 72 hours/100°C	ISO 815	%	29
Flammability ³⁾	UL 94		V0

¹⁾ 1 MPa = 145 psi ²⁾ 1 N/mm = 5,71 lb/in ³⁾ UL file no. OCDT2.E471560

Electrical and Shielding Properties

	Test procedure	Unit	8950
Volume resistivity, as moulded	MIL-DTL-83528C	mOhmcm	21
Volume resistivity, aged 48h/156°C	MIL-DTL-83528C	mOhmcm	35
Average shielding effect, 0,3-20 GHz	Nolato cavity to cavity test method	dB	112

Vibration Properties ¹⁾

	Test procedure	Unit	8950
Average shielding effect, 0,3-20 GHz	Nolato cavity to cavity test method	dB	112
Technical cleanliness	Nolato FIP cleanliness test method		Pass

¹⁾ Vibration testing according to ISO 16750-3:2012, test V.

Processing

Nolato 8950 is a two-component compound of pasty consistency. The component A and B are delivered in 1000 ml cartridges with a shelf life of at least 9 months if stored at -18°C. The components are mixed in a ratio of 1:1 by weight prior to use. The mixed material is dispensed as a bead directly on the component with a standard dispensing machine. The dispensed gasket could be given a narrow shape in the Trishield 2.0 forming unit*. Curing is normally done in a hot air oven at 150°C for 30 minutes. For detailed information please refer to the “Trishield Mixing and handling instruction”.

RoHS Information

Nolato 8950 fulfils the requirements set by the EU RoHS Directive 2011/65/EU and its amendment 2015/863/EU.

Safety Instructions

Nolato 8950 is according to EU directive 1272/2008 (CLP) classified as hazardous, due to the content of nickel. Nickel may cause sensitisation by skin contact. It is advisory to never touch the gasket without gloves. A material safety data sheet can be sent on request.

Warranty

The recommendations and data given are based on our experience to date, however, no liability can be assumed in connection with their usage and processing. The typical property data as shown above should not be used as a specification.

* Production of Trishield gaskets requires a license from Nolato. The licence includes rights to produce and market Trishield gaskets and technical support and the special forming.

