

Data Sheet Trishield Conductive Silicone Rubber Nolato 8210

Nolato 8210 is a conductive silicone rubber used to produce integrated EMI shielding gaskets by dispensing.

Nolato 8210 key properties:

- Typical gasket height from 0,6 mm to 1,2 mm.
- Recommended compression between 10 and 30%¹⁾.
- Operating temperatures between -40°C and +125°C.
- Good adhesion to most metal and metallised surfaces.
- Low viscosity offers short cycle times in any dispensing machine.
- Low temperature thermal cure silicone.

1) Higher compression degree might be possible depending in the height/width ratio

Applications

Nolato 8210 is particularly suitable for production of optical network interface modules and other applications when a low compression force is needed.

Typical Product Data

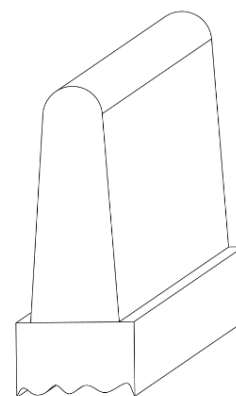
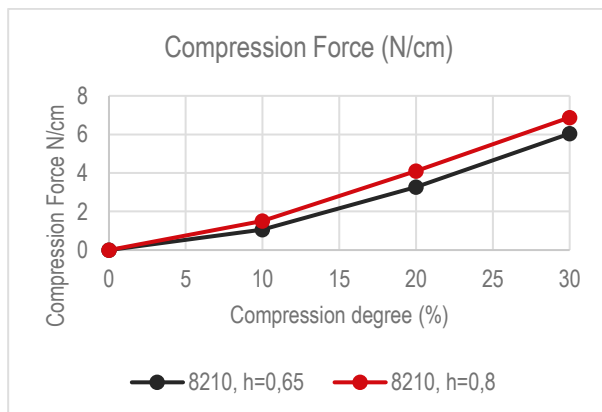
	Test procedure	Unit	8210
Base material			Silicone rubber
Conductive filler			Ag/Ni
Density, uncured		g/cm ³	2,6
Viscosity mixed. at shear rate 10 ^{s-1}	Nolato FOU-04/5	Pas	75
Electrical resistance	Nolato FOU-04/6	mOhm	40
Adhesion	Nolato FOU-04/7		Cohesive failure

Compression Properties ¹⁾

	Test procedure	Unit	8210
Compression force at 30% ²⁾	Nolato FOU-03-107 ⁴⁾	N/cm	6,9
Compression force at 30% ³⁾	Nolato FOU-03-107 ⁴⁾	N/cm	6,0

¹⁾ Material cured at 120 °C for 30 min ²⁾ Gasket dimensions h=0,8mm, w=0,3mm ³⁾ Gasket dimensions h=0,65 mm, w=0,3mm

⁴⁾ Probe dimensions 100X10 mm



Outgassing Properties ¹⁾

	Test procedure	Unit	8210
Total mass loss	ASTM E595	%	0,14
Collected volatile condensable material	ASTM E595	%	0,03
Water vapor recovered	ASTM E595	%	0,01

¹⁾ Material cured at 120 °C for 30 min

Mechanical Properties

	Test procedure	Unit	8210
Density, cured	ISO 12154	g/cm ³	3,2
Hardness	ISO 48-4	Shore A	64
Tensile strength ¹⁾	ISO 37	MPa	3,1
Elongation at break	ISO 37	%	260
Tear strength ²⁾	ISO 34-1C	N/mm	15
Compression set, 72 hours/100°C	ISO 815	%	34
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	8210
Volume resistivity, as moulded	MIL-DTL-83528C	mOhmcm	14
Volume resistivity, aged 48h/156°C	MIL-DTL-83528C	mOhmcm	16

Processing

Nolato 8210 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 1:7,2 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 120°C for 30 minutes. For detailed information please refer to the “Trishield Mixing and handling instruction”.

RoHS Information

Nolato 8210 fulfils the requirements set by the EU RoHS Directive 2011/65/EU and its amendment 2015/863/EU.

Safety Instructions

Nolato 8210 is according to EU directive 1272/2008 (CLP) classified as hazardous. It is advisory to never touch the material 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.