



## FORM IN PLACE GASKET NOLATO CONDUCTIVE SILICONE RUBBER 8812



# Trishield®

## CHARACTERISTICS

Nolato 8812 is a conductive silicone rubber.

- A two-component thermal cure silicone filled with conductive Ni/C particles.
- It is used to produce integrated EMI shielding gaskets by dispensing and Trishield forming directly on telecom or other industrial components.
- The patented Trishield gasket\* offers a triangularly shaped narrow gasket with less material consumption and less compression force.
- Low viscosity offers short cycle times in any dispensing machine.
- Excellent shielding combined with good mechanical properties.
- The aluminum compatible conductive filler offers enhanced galvanic corrosion resistance and stability in severe environments.
- Flammability UL94-V0.
- Operating temperatures between -55°C and +125°C.
- Good adhesion to most metal and metalized surfaces.
- Typical gasket height from 0.8 to 2.0 mm. Width to height ratio is < 1.
- Recommended compression between 10 and 50%.

## APPLICATIONS

- Nolato 8812 shielding is a low cost alternative to mass producing gaskets for metallic and plated aluminum housings and castings.
- Typical applications include EMI shielding gaskets in mobile phone base stations.

## PROCESSING

Nolato 8812 is a two-component compound paste, dispensed as a bead directly onto the component with a dispensing machine. The dispensed gasket is given a narrow shape in the Trishield forming unit. Curing is done in a hot air oven at 100°C for 30 minutes.

#### PRODUCT DATA

PROPERTY	<b>TEST PROCEDURE</b>	UNIT	8812
Base Material			Silicone Rubber
Conductive Filler			Nickel/Graphite
Density, uncured		g/cm <sup>3</sup>	2.0
Viscosity A comp. at shear rate 10 <sup>s-1</sup>	Nolato FOU-04/5	Pas	65
Viscosity B comp. at shear rate 10 <sup>s-1</sup>	Nolato FOU-04/5	Pas	65
Viscosity mixed at shear rate 10 <sup>s-1</sup>	Nolato FOU-04/5	Pas	65
Electrical resistance	Nolato FOU-04/6	mOhm	300
Adhesion	Nolato FOU-04/7		Cohesive failure

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

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IGNITION



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#### MECHANICAL PROPERTIES

PROPERTY		TEST PROCEDURE	UNIT	8812
Density, cured		ISO 2781	g/cm <sup>3</sup>	2.2
Durometer/Hardness		ISO 7619	Shore A	80
Tensile strength		ISO 37	MPa	2.81)
Elongation at break		ISO 37	%	100
Tear strength		ISO 34-1C	N/mm	13 <sup>2)</sup>
Compression set, 72 hours/100°C		ISO 815	%	55
Compression modulus,	10% strain 20% strain	ISO 7743	MPa	25.2 25.5
Flammability		UL 94		V0

1) 1 MPa = 145 psi

2) 1 N/mm = 5.71 lb/in

#### ELECTRICAL AND SHIELDING PROPERTIES

PROPERTY	TEST PROCEDURE	UNIT	8812
Volume resistivity, as molded	MIL-DTL-83528C	mOhmcm	8
Volume resistivity, heat aged 48h/156°C	MIL-DTL-83528C	mOhmcm	16
Volume resistivity, heat aged 1000h/125°C	MIL-DTL-83528C	mOhmcm	26
Average shielding effect, 0.3 – 20 GHz Gasket on aluminum, fresh	Nolato cavity to cavity test method	dB	130

#### **RoHS INFORMATION**

Nolato 8812 fulfills the requirements set by the EU Directive 2002/95/EC (RoHS).

## SAFETY INSTRUCTIONS

Due to the content of nickel, Nolato 8812 is classified as harmful (Class Xn) according to EU directives. To avoid irritation due to skin contact with nickel, wearing gloves while handling is recommended. A material safety data sheet can be sent on request.

## WARRANTY

The data given in this product information should be taken only as a guide and not a specification. Data are based on statistical evaluation on data measured on a number of batches at Nolato.

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.

CUSTOMERS WHO USE TRISHIELD® MAY ALSO BE INTERESTED IN:	
EMI SHIELDING	

**COMPASHIELD**°

COMPATHERM



CUSTOMERS ALSO SEARCHED:

form in place gasket liquid gaskets liquid gasket gasket tack form in place conductive material form in place gaskets dispensed gaskets dispensed gasket form-in-place Dispensed gasket conductive gasket

liquid gasket paste gasket emi gasket conductive silicone gasket conductive silicone emi shielding gasket formed gasket electrically conductive gasket silver silicone nickel graphite silicone

#### THE NOLATO GROUP

Nolato is an advanced high-tech polymer partner with operations in Europe, Asia and North America. We develop and manufacture products in materials such as plastic, silicone and TPE. Our customer offering comprises everything from concept development, product design and process optimization to high-volume production, post-processing, assembly and logistics

We are Modus! With multiple locations in North America and China, Modus Advanced, Inc. is a diversified custom manufacturer that converts EMI Shielding, Environmental Gasket Materials, Microwave Absorbers, Acoustic Materials, Thermal Interface Materials and other high performance materials into finished parts. Modus utilizes its 40 years as an established provider of high quality, reliable products to create precisely what customers specify. Innovative processes; custom fabrication utilizing performance materials; an on time delivery record of more than 99% means Modus is well positioned to help your company succeed.

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