

DATA SHEET OF TRISHIELD SOFT GASKET

Introduction



Trishield Soft is an EMI shielding gasket developed by Nolato. It's a modified version of dispensed Trishield gasket. It is co-dispensed with conductive material as the outer layer and non-conductive material as the inner layer.

Features and benefits

Trishield Soft offers up to 70% lower compression force compared to other FIP gaskets. This fact gives possibilities to big improvements.

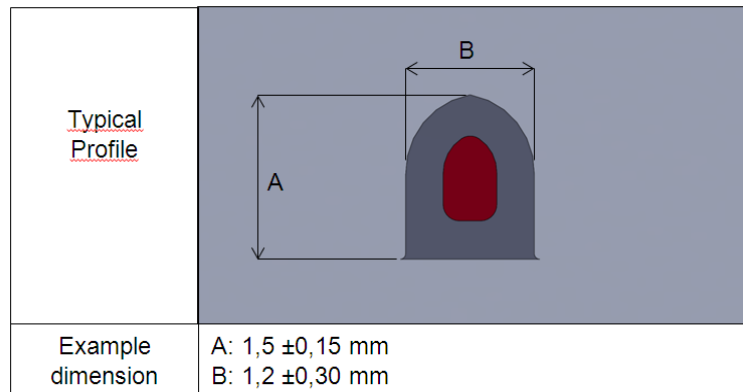
- Excellent shielding properties
 - Up to 110 dB
- Space saving on PCB
 - Through reducing the number of screws
- Reduced over-all cost
 - Less screws
 - Less machining
 - Thinner and less stiff covers
- Global access
 - Through our EMC production centers all over the world
- Available in gasket heights of 1,2-2 mm.
- A range of metal filler as Ni/C or Ag/Ni or Ni/Al depending on the customer demand

Typical material properties

Property	Test procedure	Unit	8510	8801	8818
Base material			Silicone	Silicone	Silicone
Conductive filler			-	Ag/Ni	Ni/C
Volume resistivity, as moulded	MIL-DTL-83528C	mOhmcm	-	5	5
Volume resistivity, aged 125C/1000h	MIL-DTL-83528C	mOhmcm	-	6	8
Shielding effect Average 0.3-20 GHz Trishield Soft gasket on aluminium	Nolato cavity-to-cavity	dB	-	70	110
Density	ISO 2781	g/cm ³	1,1	3,2	2,2
Hardness	ISO 7619	Shore A	23	70	80
Tensile strength	ISO 37	Mpa	7,9	2,9	2,7
Elongation at break	ISO 37	%	750	190	120
Tear strength	ISO 34-1C	N/mm	21	14	13
Compression set, 72 h, 100 °C	ISO 815	%	8	30	53
Flammability	UL 94		V0	V0	V0
Compression modulus, 10% strain 20% strain	ISO 7743	MPa	2,8 3,1	9,5 10,1	25,2

Availability

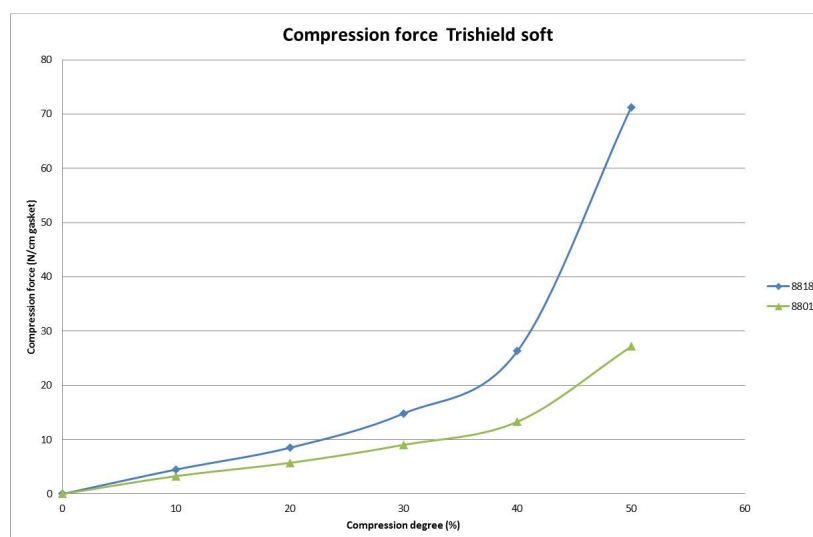
A wall thickness of 0,3-0,4 mm is required to achieve full shielding effect. The percent of the cross section area covered by the core material depends on the gasket size. A large gasket will benefit more of the improved mechanical properties of the core material. A typical gasket will have a core equal to 20% of the cross section area. One example of Trishield Soft gasket is pictured as below.



Compression set

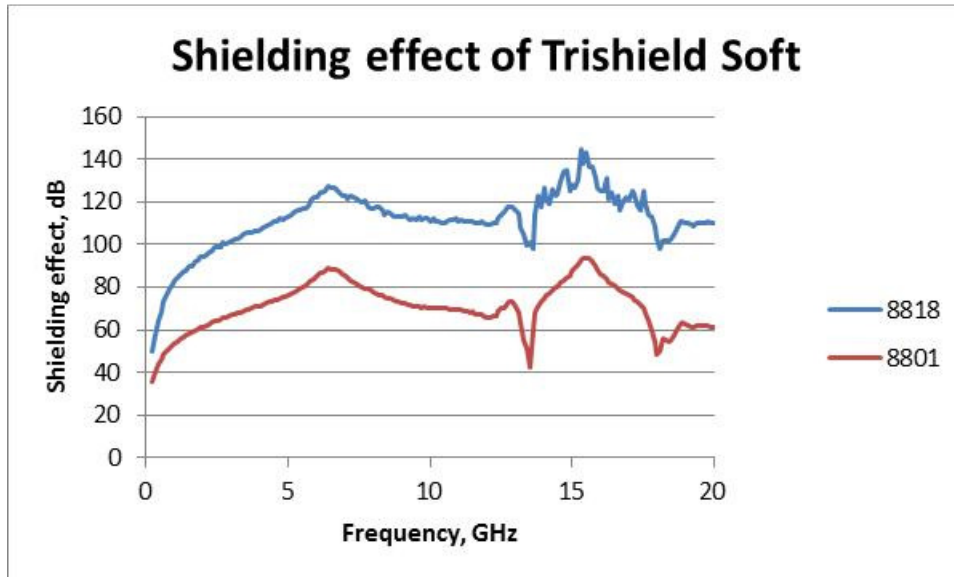
Property	Test condition	8801 Trishield Soft	8818 Trishield soft
Compression set, ISO 815	72 h, 100°C	15%	20%

Compression force



*Test is made on gaskets with 1,6 mm in height. Recommended compression degree is from 10% to 50% in the assembled state. Both 8801 and 8818 Trishield Soft gaskets require much lower compression force compared with the standard Trishield gaskets.

Comparison on shielding effect



*Test is made on gaskets with 1,6 mm in height compressed to 1,0 mm during test with Nolato Cavity-to-cavity test method.

*Trishield soft gaskets are covered by patents SE 521 689, EP 1360 885 B1, US 7161090B2, CN 02803328.
The production equipment for Trishield soft is cover by patent application SE1250030-2.