



Wires in Silicone

Gasket material offering IP65 and excellent through-gasket conductivity

Product Overview

'Wires in Silicone' is a gasket material consisting of a silicone sheet with penetrating wires which creates a conductive pathway through the material. It can be supplied in sheets, strip or bespoke forms. The material lends itself to cut gasket and *picture-frame* gasket construction. This product, with the correct fitment provides both EMI Shielding and an IP65 rated environmental seal.



Properties

Elastomer Properties

Part No (1 st digit)	Elastomer Description	Specification
1	Solid Silicone	ZZ-R-765 2B 40
2	Sponge Silicone	AMS 3195
3	Solid Fluorosilicone	Mil-R-25988 Gr50

Wire Properties

Part No (2 nd digit)	Wire Description	Specification
1	Monel Wire	QQ-N-281, 0.114 dia
2	Aluminium Wire	Alloy 5056, 0.127 dia
3	Tinned Phosphor Bronze	ASTM B105, 0.114 dia

Adhesive Properties (AC material only)

Property	Typical Value
Adhesive Type	A-60 medium-firm acrylic
Carrier	None
Release Liner	Paper
Release Liner Thickness (mm)	0.102
Tape Thickness (mm)	0.127
Tape Colour	Clear
Adhesion to Steel (N/100 mm)	82
Operating Ranges: Short Term (°C)	82
Operating Ranges: Long Term (°C)	121
Relative Solvent Resistance	Medium

Performance

Elastomer	Solid Silicone			Sponge Silicone			Fluorosilicone		
Part Number	WIS11	WIS12	WIS13	WIS21	WIS22	WIS23	WIS31	WIS32	WIS33
Shielding: 200kHz (dB)	70	70	70	70	70	70	70	70	85
Shielding: 100 MHz (dB)	125	100	130	120	85	130	125	100	130
Shielding: 1 GHz (dB)	125	100	125	125	70	125	125	100	125
Fuel/Solvent Resistance	No	No	No	No	No	No	Yes	Yes	Yes
Closing Force (PSI)	25-100	25-100	25-100	5-50	5-50	5-50	25-100	25-100	25-100
Compression Set	25%	25%	25%	25%	25%	25%	25%	25%	25%
Temperature Range (°C)	-65/200	-65/200	-65/200	-65/200	-65/200	-65/200	-55/200	-55/200	-55/200
EMP Survivability	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Colour	Grey	Grey	Grey	Grey	Grey	Grey	Blue	Blue	Blue
Wire Count/ sq. in	900	900	900	650	650	650	900	900	900

Configurations

Thickness

Thickness Code	Thickness (mm)
008	0.8
011	1.1
014	1.4
015	1.5
016	1.6
020	2.0
024	2.4
032	3.2
040	4.0
048	4.8
064	6.4

Width

Strip Code	Width (mm)
016	1.6
024	2.4
032	3.2
040	4.0
048	4.8
064	6.4
080	8.0
095	9.5
127	12.7
159	15.9
190	19.0
254	25.4

Sheet Code	Width (mm)
S76	76.0
S14	114.0
S76	176.0

Tolerances

Dimension (mm)	Thickness (mm)	Width (mm)
0.81 – 1.56	+2.54/ -0.13	N/A
1.57 – 6.35	± 2.54	± 0.41
6.36 – 19.05	± 2.54	± 0.79
19.06 – 38.1	± 2.54	± 1.94
76.2	N/A	Minimum
114.3	N/A	Minimum
152.4	N/A	Minimum
228.6	N/A	Minimum

Sheet & Strip Selection

WIS - 1 - 2 - 016 - 127 NA

Elastomer Material
Wire Material
Thickness Code
Width Code
AC – Adhesive
NA – Non-Adhesive

Above Example: Aluminium Wire in Solid Silicone 1.6 mm thick and 12.7 mm wide. No adhesive.

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