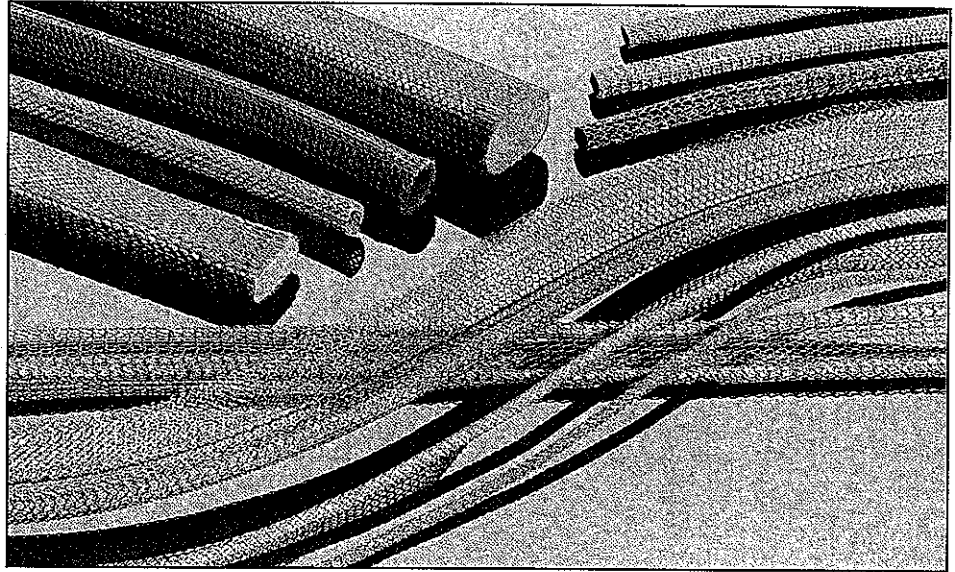


Elastomer Cored Mesh



Description

Elastomer cored mesh comprises of a resilient rubber core, knitted over with layers of wire mesh (typically two layers). The knitted wire element provides EMI shielding effectiveness close to that of solid mesh, while the flexible core enables the gasket section to recover more readily, following repeated compression.

General Information

The product can be manufactured in a combination of four different wire types; Monel, T.C.S., Aluminium and Stainless Steel, and two standard elastomer materials; Neoprene or Silicone. Alternative core materials such as EPDM, Nitrile and T.P.R. may be available on request. The selection of wire type is dependant on the application, it is important to consider galvanic compatibility for hostile environments. Electrical compatibility may be important in specific cases, for example where EMP protection is required we would recommend using T.C.S. wire.

The selection of elastomer type is normally based on mechanical and environmental considerations, such as compressibility, operating temperature range, operating life expectancy etc. Neoprene and Silicone rubber are available in sponge or solid form, both types can be supplied in a wide range of extruded profiles, including tubular sections. Silicone has a greater tolerance of extreme temperature, it also has a longer operating life. *For full material specifications see page 24.*

Elastomer cored mesh is ideally suited to applications where a conformable EMI seal is required and where no environmental protection is necessary, though it will provide drip and dust protection.

The durability of the rubber core makes the product particularly appropriate for use around the doors of racks and other enclosures, where quite large levels of panel unevenness can be accommodated, and where there is a likelihood of regular opening and closing on to the gasket seal.

Elastomer cored mesh can be produced in a continuous length on a reel, as cut pieces, or as a fabricated gasket to your specification. Four standard cross-sectional profiles are available, in a variety of sizes. Other sizes and forms may be available to special order. For applications advice or product selection assistance, please contact our sales office.

How to Order

Mesh Type	Silicone		Neoprene	
	Sponge	Tube	Sponge	Tube
Monel	MSS	MST	MNS	MNT
T.C.S.	CSS	CST	CNS	CNT
Aluminium	ASS	AST	ANS	ANT
Stainless Steel	SSS	SST	SNS	SNT
Cross Sections				
	Rectang-ular	Round	Round with Tail	Double Round with Tail
Designation	51	50	55	54

Examples:

MNS 50-0048 = Monel wire, Neoprene sponge, round section, 4.8mm diameter.

ASS 51-0064-0095 = Aluminium wire, Silicone sponge, rectangular section 6.4mm high x 9.5mm wide.

Note: Dimensions are all finished sizes.

Monel

DIN 17743 or BS3075 NA13
 Alloy 400L
 Wire Diameter 0.11mm
 Test Gasket fabricated from MSS 50-0064

Shielding Effectiveness

Electrical		
Frequency Hz	Mode	Screening dB
1M	E	124.5
10M	E	107
110M	P	106
400M	P	98.5
1G	P	81
10G	P	62.5
Magnetic		
10K	H	38.0
100K	H	40.5
1M	H	45.5

Aluminium

Alloy 5056, BS1475
 Wire Diameter 0.11mm
 Test Gasket fabricated from ASS 50-0064

Shielding Effectiveness

Electrical		
Frequency Hz	Mode	Screening dB
1M	E	126
10M	E	108
110M	P	106
400M	P	89.5
1G	P	65.5
10G	P	51.5
Magnetic		
10K	H	32
100K	H	57.6
1M	H	81

T.C.S

ASTMB-520-70
 Steel Core (57%) AISI 1010/AISI 1006
 Copper Cladding (40%)
 Tin Plating (3%)
 Wire Diameter 0.11 mm
 Test Gasket fabricated from CSS 50-0064

Shielding Effectiveness

Electrical		
Frequency Hz	Mode	Screening dB
1M	E	126
10M	E	108
110M	P	116
400M	P	101
1G	P	64
10G	P	59
Magnetic		
10K	H	32
100K	H	57.6
1M	H	81

Stainless Steel

AISI 304
 Wire Diameter 0.11mm
 Test Gasket fabricated from SSS 50-0064

Shielding Effectiveness

Electrical		
Frequency Hz	Mode	Screening dB
1M	E	119
10M	E	102.5
110M	P	97
400M	P	85
1G	P	62
10G	P	36
Magnetic		
10K	H	35
100K	H	43.5
1M	H	50.5

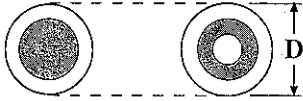
Shielding Effectiveness Tests were performed in accordance with modified MIL-STD 285. Test Gasket was 300mm square.

Elastomer Specs

Silicone: Solid: MIL-R-5847, ZZR 765 Class 2 Sponge: AMS3195

Neoprene: Solid: RFI 0205 Sponge: RFI 0206

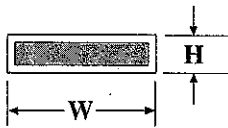
Round



Core O.D.	I.D. (Tube)	Part Number
mm	mm	
1.6	N/A	50-0016*
2.0	1.0	50-0020
3.2	1.6	50-0032
4.8	3.2	50-0048
6.4	3.2	50-0064
8.0	4.8	50-0080
9.5	6.4	50-0095
11.1	8.0	50-0111
12.7	9.5	50-0217
14.9	11.1	50-0149
19.1	-	50-0191

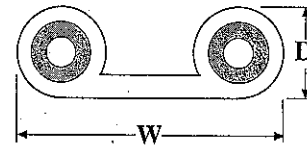
* 1 layer of mesh

Rectangular



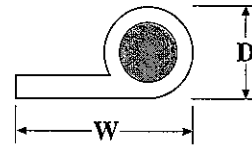
Height	Width	Part Number
mm	mm	
3.2	1.6	51-0032-0016
3.2	3.2	51-0032-0032
3.2	4.0	51-0032-0040
3.2	4.8	51-0032-0048
3.2	6.4	51-0032-0064
4.8	4.8	51-0048-0048
6.4	1.6	51-0064-0016
6.4	3.2	51-0064-0032
6.4	6.4	51-0064-0064
6.4	9.5	51-0064-0095
6.4	12.7	51-0064-0127
9.5	12.7	51-0095-0127
9.5	15.9	51-0095-0159
12.7	12.7	51-0127-0127
12.7	19.1	51-0127-0191

Double Round with Tail



Diameter	Width	Part Number
mm	mm	
3.2	9.5	54-0032-0095
3.2	12.7	54-0032-0127
3.2	15.9	54-0032-0159
4.8	15.9	54-0048-0159
4.8	19.1	54-0048-0191
4.8	25.4	54-0048-0254
6.4	15.9	54-0064-0159
6.4	19.1	54-0064-0191
6.4	25.4	54-0064-0254

Round with Tail



Diameter	W (O/A)	Part Number
mm	mm	
3.2	12.7	55-0032-0127
3.2	15.9	55-0032-0159
3.2	19.1	55-0032-0191
4.8	12.7	55-0048-0127
4.8	19.1	55-0048-0191
6.4	19.1	55-0064-0191

ALL DIMENSIONS ARE FINISHED SIZES

Tolerances

Up to 2.0mm thickness or $\varnothing \pm 0.3$
 2.0mm to 4.0mm + 0.5 -0.3
 4.0mm to 10.0mm + 0.8 -0.4
 10.0mm to 17.0mm ± 1.3