

# KNITSHIELD | Twinstrip KC Shielding

Twinstrip is a combination of knitted or cored mesh gasket with a non-conductive environmental seal. The wire mesh types used are Monel, Aluminium, TCS and Stainless Steel and the permutations of wire and elastomer combinations are almost endless providing a wide range of environmental, water, dust and pressure seals.

KC materials can be supplied as gaskets, in strip form or as pre-cut kits, ready bagged and labelled to suit specific enclosures. Limit stops and collars can be fitted to prevent over-compression or the distortion of mating surfaces.

## Applications:

Twinstrip is used on enclosure doors and covers where an environmental or high IP rated seal is needed in addition to an EMI gasket. The materials provide the shielding levels of knitted mesh combined with the environmental protection of sponge, tubular or solid rubbers. For hazardous situations, such as the presence of hydrocarbon contamination, fluorosilicone or other chemical resistant elastomers can be used.

Most Twinstrip has a pressure sensitive adhesive backing with release tape, enabling the gaskets to be quickly and easily fixed in position. The adhesive also helps unmounted gaskets to retain their shape during production and storage and allows the gaskets to be mounted onto any flat surface without the need for a groove or channel to hold it in place.

For many applications, particularly where the gasket is fitted inside a rack or enclosure, pre-cut and mitred adhesive backed lengths of Twinstrip can be supplied to your specification, offering a fast and effective solution that reduces material costs and packaging.

## Specifications:

Monel	- BS3075 – NA13	(0.11mm diameter)
Aluminium 5056	- AMS 4182	(0.13mm diameter)
TCS	- ASTM B520	(0.11mm diameter)
Stainless Steel	- Alloy 304	(0.11mm diameter)
Silicone Sponge	- AMS 3195	
Silicone Solid	- ZZ-R-765	
Neoprene Songe	- Mil-R-6130	
Neoprene Solid	- Mil-R-6855	

## Performance: Typical Attenuation dB

FREQUENCY	FIELD	MONEL	ALUMINIUM	TCS	S/STEEL
10KHz	H	45	40	60	40
100KHz	H	49	45	65	44
1MHz	H	60	60	85	58
1MHz	E	125	125	125	125
10MHz	E	120	120	120	120
100MHz	E	100	100	108	100
400MHz	P	98	95	99	94
1GHz	P	85	76	78	76
10GHz	P	80	65	62	60

## Tolerances:

- Wire meshes - generally  $\pm 0.8\text{mm}$  on diameter, width and height
- Linear measurements on gaskets - up to  $300\text{mm} \pm 0.8\text{mm}$ , up to  $1000\text{mm} \pm 1.5\text{mm}$
- Sponge and solid elastomers - up to  $4.5\text{mm} \pm 0.4\text{mm}$ , over  $4.5\text{mm} \pm 0.8\text{mm}$



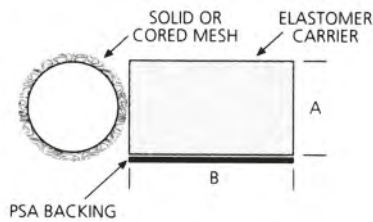
P & P Technology Ltd  
Unit 5 Cherry Tree  
Wethersfield Road  
Halstead, Essex CO9 3LZ

T: +44 (0) 1376 550 525  
W: www.p-p-t.co.uk  
E: info@p-p-t.co.uk

## TWINSTRIP CONFIGURATIONS

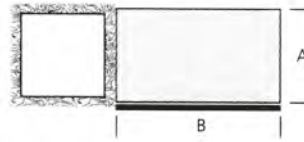
### STANDARD

ROUND MESH OR  
CORED MESH AND  
CARRIER WITH PSA



### STANDARD

SQUARE MESH OR  
CORED MESH AND  
CARRIER WITH PSA



### SOFT 'P' SEAL\*

SOFT 'P' SECTION  
S/A EPDM SPONGE  
WITH TUBE CORE  
MESH SECTION

\*According to customers specifications or drawings



### DOUBLE\*

TWO MESH SECTIONS  
OF MESH AND PLAIN  
RUBBER/TUBE AND  
CARRIER WITH PSA

\*According to customers specifications or drawings

Base Part Numbers for Standard Sizes of Elastomer Carrier

A X B	PART NUMBER	A X B	PART NUMBER
1.6 x 3.2	0016-0032	4.8 x 12.7	0048-0127
1.6 x 9.5	0016-0095	4.8 x 15.9	0048-0159
1.6 x 12.7	0016-0127	4.8 x 19.1	0048-0191
1.6 x 15.9	0016-0159	6.4 x 6.4	0064-0064
2.4 x 9.5	0024-0095	6.4 x 9.5	0064-0095
2.4 x 12.7	0024-0127	6.4 x 12.7	0064-0127
2.4 x 19.1	0024-0191	6.4 x 15.9	0064-0159
3.2 x 4.8	0032-0048	6.4 x 19.1	0064-0191
3.2 x 6.4	0032-0064	9.5 x 6.4	0095-0064
3.2 x 9.5	0032-0095	9.5 x 9.5	0095-0095
3.2 x 12.7	0032-0127	9.5 x 12.7	0095-0127
3.2 x 15.9	0032-0159	9.5 x 19.1	0095-0191
3.2 x 19.1	0032-0191	9.5 x 25.4	0095-0254
4.8 x 4.8	0048-0048		
4.8 x 6.4	0048-0064		
4.8 x 9.5	0048-0095		

Continuous lengths are 10 metres and rolled unless otherwise specified

### Please note:

- Rubber gaskets change shape marginally after cutting as the rubber recovers. This should be taken into account when inspecting pre-cut gasket forms
- Twinstrip can be supplied as strip material, pre-formed gasket sections or as finished gaskets

- Maximum length for strip material is 10 metres
- Other sizes are available – please ask!

For details of fixing methods or any technical queries please contact our sales office.

### How to order:

Standard sizes can be specified from the table above. Alternatively, specify:

*Series - Mesh portion - Elastomer - Size/Dimensions*

#### Example:

KC-MST-60-0032(1)-NS-0032-0127-S/A = Monel mesh (1 layer) over 3.2 diameter Silicone tube bonded to Neoprene sponge 3.2 x 12.7 mm rectangular section (self-adhesive)

#### Notes:

- Suffix #1 (after mesh portion) = number of layers of mesh, E.g. (1) indicates one layer, default is 2 layers
- S/A = Self-adhesive (default is S/A)
- N/A= No adhesive.

For gaskets or strip material not shown, please send a drawing or specification and we will allocate a part number with our quotation

SERIES	MESH PORTION	ELASTOMER	SIZE/DIMENSION OF ELASTOMER
KC	M=Monel	SS=Silicone Sponge	xxxx-xxxx
	A=Aluminium	NS=Neoprene Sponge	
	T=TCS	NX=Neoprene Solid	
	S=Stainless Steel	SX=Silicone Solid	
		ES=EPDM Sponge	



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