

Our E Range gaskets are constructed from silicone containing metal powder fillers which combine to produce high levels of attenuation with excellent environmental shielding and a high level of conductivity. Many types of filler, from nickel graphite to pure silver, are available to suit a wide range of applications. There are also Fluorosilicone variants for use in the presence of hydrocarbon contamination.



Specifications:

E Range Properties

Series		EC-Q	EC-G	EC-K	EC-J	EC-H	EC-S	EC-C
Filler	Test Method	Nickel Graphite	Silver Glass	Silver Nickel	Silver Aluminium	Silver Copper	Silver Pure	Carbon
Upper Operating Temp. Degrees C		+160	+160	+160	+160	+160	+160	+160
Lower Operating Temp. Degrees C	ASTM D-1329	-50	-50	-50	-50	-50	-50	-50
Specific Gravity (±5%)	ASTM D-792	1.99	1.75	4.60	2.00	3.02	3.20	1.19
Hardness Shore A (±5)	ASTM D-2240	60	60	80	65	60	75	70
Elongation % (min)	ASTM D-412	100	80	100	175	100	100	150
Compression Set %	ASTM D-395	30	30	30	30	30	30	20
Tensile Strength Mpa (min)	ASTM D-412	1.00	0.90	1.25	0.90	1.00	1.25	5.00
Volume Resistivity ohms/cm (Max)		0.1	0.05	0.005	0.008	0.008	0.002	9.00
Shielding Effectiveness (dB)	MIL-G-83528 MIL285							
200 KHz (H-Field)		70	55	75	70	75	70	30
100 MHz (E-Field)		95	95	110	110	110	115	65
500 MHz (E-Field)		90	90	110	105	120	115	60
2 GHz (Plane Wave)		90	90	105	100	120	115	40
10 GHz (Plane Wave)		90	90	100	100	120	115	30



Applications:

The Conductive Silicone Range was originally developed for high performance shielding mainly for military applications. However, the introduction of lower cost fillers has now made them accessible to the commercial sector. They are used where environmental and EMI screening is required but space constraints or stringent environmental protection necessitates a small cross section profile, often fitted into a groove or channel.

The E Range is best used where mating surfaces are smooth and well machined. They should be mounted to provide adequate volume for the material to deflect under pressure and should be compressed by between 8 and 20% of their relaxed height for solid sections and between 20 and 100% of the height of the hollow centre of tubular sections. Moulded 'O' rings, gasket profiles and sheet materials all have their own compression characteristics according to how they are mounted and do not comply with the guidelines above.

EC Series

For the EC Series extrusions, a round or D section profile, fitted into a correctly dimensioned groove or channel will provide the most effective sealing and shielding performance. Fixing with any form of conductive adhesive is not recommended as this is likely to have an adverse effect on the environmental sealing.



How to Order:

Standard sizes can be specified from the table below. Alternatively please provide a drawing of the profile required indicating series and filler.

Series	Filler Code	Style/Shape	Size
EC=Silicone	Q=Nickel Graphite	60=Solid Round	xxxx
ECF=Flurosilicone	G=Silver Glass	61=Hollow Round	xxxx-xxxx
	K=Silver Nickel	11=Solid 'D'	xxxx-xxxx-xxxx
	J=Silver Aluminium	12=Hollow 'D'	xxxx-xxxx-xxxx-xxxx
	H=Silver Copper	13='U' Channel	xxxx-xxxx-xxxx-xxxx
	S=Silver	70=Rectangular	xxxx-xxxx
	C=Carbon	81=Solid 'P' Section	xxxx-xxxx-xxxx-xxxx
		82=Hollow 'P' Section	xxxx-xxxx-xxxx-xxxx

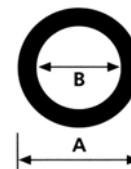
Example:

EC-J-61-0032-0016 is extruded tubular Silicone with Silver plated Aluminium filler of 3.2 mm o.d. and 1.6 mm i.d.



SOLID ROUND

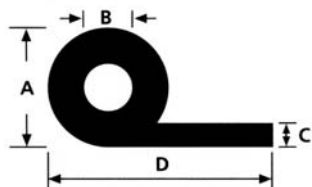
Dim A (mm)	Part Number
1.02	60-0010
1.35	60-0014
1.57	60-0016
1.78	60-0018
2.03	60-0020
2.36	60-0024
2.62	60-0026
2.84	60-0028
3.02	60-0030
3.18	60-0032
3.30	60-0033
3.53	60-0035
3.81	60-0038
4.06	60-0040
4.78	60-0048
5.49	60-0055
6.35	60-0064



HOLLOW ROUND

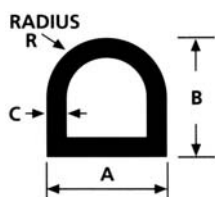
Dim A (mm)	Dim B (mm)	Part Number
2.40	0.80	61-0024-0008
3.18	1.14	61-0032-0011
3.96	1.27	61-0040-0013
6.35	3.18	61-0064-0032
7.92	4.88	61-0080-0048
9.53	6.35	61-0095-0064





HOLLOW 'P'

Dim A (mm)	Dim B (mm)	Dim C (mm)	Dim D (mm)	Part Number
5.08	2.03	1.57	12.70	82-0051-0020-0016-0127
5.08	2.03	1.57	21.59	82-0051-0020-0016-0216
6.35	3.18	1.57	12.70	82-0064-0032-0016-0127
6.35	3.18	1.57	15.88	82-0064-0032-0016-0160
6.35	3.18	1.57	22.22	82-0064-0032-0016-0222
7.92	4.75	1.57	22.22	82-0080-0048-0016-0222
9.14	6.48	1.79	19.81	82-0091-0065-0018-0198

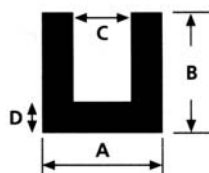
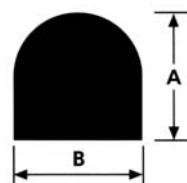


HOLLOW D

Dim A (mm)	Dim B (mm)	Dim C (mm)	Rad R (mm)	Part Number
3.96	3.96	1.14	1.98	12-0040-0040-0011-0020
4.75	4.72	1.27	2.36	12-0048-0047-0013-0024
6.35	6.35	1.65	3.18	12-0064-0064-0017-0032
7.92	7.92	1.27	3.96	12-0080-0080-0013-0040
7.92	7.92	1.57	3.96	12-0080-0080-0016-0040
12.37	8.23	2.03	6.20	12-0124-0082-0020-0062

SOLID D

Dim A (mm)	Dim B (mm)	Part Number
1.63	1.40	11-0016-0014
1.73	1.57	11-0017-0016
1.98	2.39	11-0020-0024
2.26	1.98	11-0023-0020
2.54	1.57	11-0025-0016
2.79	3.18	11-0028-0038
3.43	3.10	11-0034-0031
3.96	3.00	11-0040-0030
4.45	4.52	11-0045-0045
4.78	4.78	11-0048-0048
6.35	6.35	11-0064-0064



U CHANNEL

Dim A (mm)	Dim B (mm)	Dim C (mm)	Dim D (mm)	Part Number
2.54	2.54	0.86	0.84	13-0025-0025-0009-0008
3.20	2.79	0.66	1.27	13-0032-0028-0007-0013
3.20	5.72	0.51	1.91	13-0032-0057-0005-0020
3.96	3.94	1.57	1.19	13-0040-0040-0016-0020
4.45	3.96	1.19	1.91	13-0044-0040-0012-0020
8.31	5.94	1.57	2.92	13-0083-0060-0016-0029

ES Series

The ES Series can be produced in sheet form or as diecut flat gaskets.

How to Order:

Specify: Series-Filler code-Drawing Number or Size

Series	Filler Code	Drawing No./Size
ES=Silicone	Q=Nickel Graphite	xxxxxxxx-xxxxxx
ESF=Flurosilicone	G=Silver Glass	
	K=Silver Nickel	
	J=Silver Aluminium	
	H=Silver Copper	
	S=Silver	
	C=Carbon	

Note: Please ensure a detailed drawing is supplied to enable a prompt and accurate quotation.

Example:

ES-J-0008-2500-3000 = Silver Aluminium 0.8mm x 250mm x 300mm

