



NICKEL/GRAPHITE FILLED SILICONE ELASTOMER

ECE072 is a nickel/graphite filled silicone elastomer. ECE072 has excellent shielding properties and conductivity. This material has excellent sealing at temperature extremes, is ozone resistant, and has a long shelf life. It has been developed to meet UL94 V-0 standard.

This material can be molded, extruded, or formed into sheets and then die-cut. See our catalog for standard shapes available, or provide information about your needs for a custom profile.

FEATURES

- Utilizes both conductive and non-conductive materials
- Provides stronger environmental shielding to the outside of gaskets due to pure silicone
- Retains strong EMI protection
- Cost-effective solution
- Able to extrude in various sizes and profiles

MARKETS

- DataCom
- Military
- Medical
- Industrial Electronics

PARAMETER	TEST METHOD	TYPICAL VALUE
Color	Visual Inspection	Gray
Elastomer type	Formulation	Silicone Resin
Filler type	Formulation	Nickel coated on Graphite
Density	ASTM D792	2.2 ± 0.25 g/cm ³
Electrical		
Shielding Effectiveness (20-MHz through 10-GHz)	MIL-DTL-83528C (4.5.12)	100 dB, minimum
Volume Resistivity 0.1 ohm-cm, maximum	MIL-DTL-83528C (4.5.10)	0.08 ohm-cm, maximum
Mechanical Properties		
Hardness - Shore A	ASTM D2240	Shore A, 68 ± 7
Tensile Strength	ASTM D412	280 psi, minimum
Elongation	ASTM D412	150%, minimum
Tear Strength	ASTM D624, die C	55 ppi, minimum
Compression Set	ASTM D395	30%, maximum
Temperature Range (min)	ASTM D1329	-45°C
Temperature Range (max)	MIL-DTL-83528C (4.5.15)	150°C
UL Flammability Rating	File E203070	UL94 V0 Certified

SHEET MATERIAL

The Table below lists thicknesses and sizes for our molded sheet material.

THICKNESS/TOLERANCE	18 X 18 SHEET
0.045 ± 0.005 (1,1 ± 0,1)	8860-0045-324-XX
0.062 ± 0.007 (1,5 ± 0,2)	8860-0062-324-XX

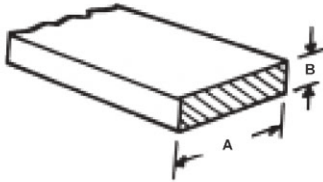
TOLERANCES ALL PROFILES

DIMENSIONS	TOLERANCE
Under 0.101 (2,6)	± 0.005 (0,15)
0.101 to 0.200 (2,6 to 5,1)	± 0.008 (0,2)
0.201 to 0.300 (5,1 to 7,6)	± 0.010 (0,3)
0.301 to 0.500 (7,6 to 12,7)	± 0.015 (0,4)
Over 0.500 (12,7)	± 0.020 (0,5)

USA: +1.866.928.8181
 Europe: +49.0.8031.2460.0
 Asia: +86.755.2714.1166

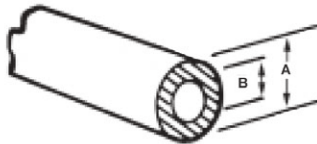


Rectangular Strips



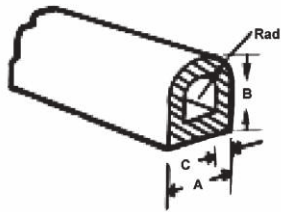
MIL-DTL-85328 PART NUMBER	PART NUMBER	NOMINAL DIMENSIONS	
		A	B
M83528/002X006	8861-0175	0.252 (6,4)	0.031 (0,8)
M83528/009X008	8861-0135	0.500 (12,7)	0.125 (3,2)
M83528/009X011	8861-0192	1.00 (25,4)	0.126 (3,2)

O-Strip Tubing



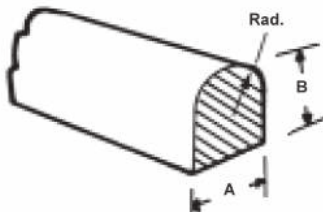
MIL-DTL-85328 PART NUMBER	PART NUMBER	NOMINAL DIMENSIONS	
		A	B
	8864-0060	0.085 (2,2)	0.040 (1,0)
M83528/011X007	8864-0095	0.103 (2,6)	0.040 (1,0)
M83528/011X001	8864-0100	0.125 (3,2)	0.045 (1,1)
M83528/011X002	8864-0105	0.156 (4,0)	0.050 (1,3)
M83528/011X008	8864-0143	0.177 (4,5)	0.079 (2,0)
M83528/011X003	8864-0110	0.250 (6,4)	0.125 (3,2)
M83528/011X004	8864-0120	0.312 (7,9)	0.192 (4,9)
M83528/011X005	8864-0125	0.375 (9,5)	0.250 (6,4)

Hollow D-Strips



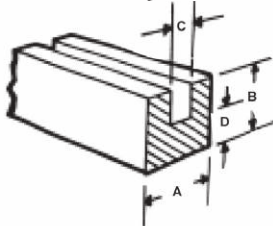
MIL-DTL-83528 PART NUMBER	PART NUMBER	DIMENSIONS			
		A	B	RAD	C
	8866-0130	0.100 (2,5)	0.094 (2,4)	0.050 (1,3)	0.025 (0,6)
M83528/007X001	8866-0100	0.156 (4,0)	0.156 (4,0)	0.078 (2,0)	0.045 (1,1)
M83528/007X007	8866-0110	0.250 (6,4)	0.250 (6,4)	0.125 (3,2)	0.065 (1,7)
M83528/007X004	8866-0166	0.374 (9,5)	0.252 (6,4)	0.187 (4,8)	0.039 (1,0)
	8866-0126	0.480 (12,2)	0.335 (8,5)	0.240 (6,1)	0.035 (0,9)
M83528/007X006	8866-0155	0.625 (15,9)	0.400 (10,2)	0.312 (7,9)	0.057 (1,4)

D-Strips



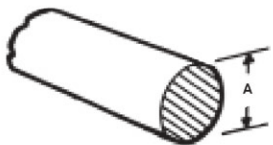
MIL-DTL-83528 PART NUMBER	PART NUMBER	DIMENSIONS			RECOMMENDED GROOVE DIMENSIONS (±0.002)	
		A	B	RAD	WIDTH	DEPTH
MB83528/003X001	8865-0105	0.062 (1,6)	0.068 (1,7)	0.031 (0,8)	0.074 (1,9)	0.057 (1,4)
MB83528/003X007	8865-0130	0.122 (3,1)	0.135 (3,4)	0.061 (1,5)	0.141 (3,6)	0.113 (2,9)
MB83528/003X012	8865-0145	0.250 (6,4)	0.250 (6,4)	0.125 (3,2)	0.286 (7,3)	0.212 (5,4)

Channel Strips



MIL-DTL-83528 PART NUMBER	PART NUMBER	DIMENSIONS			
		A	B	C	D
M83528/010X002	8868-0105	0.126 (3,2)	0.110 (2,8)	0.025 (0,6)	0.050 (1,3)
M83528/010X004	8868-0115	0.156 (4,0)	0.156 (4,0)	0.062 (1,6)	0.047 (1,2)
M83528/010X005	8868-0081	0.189 (4,8)	0.189 (4,8)	0.063 (1,6)	0.063 (1,6)
	8868-0085	0.252 (6,4)	0.252 (6,4)	0.126 (3,2)	0.063 (1,6)

O-Strips



MIL-DTL-85328 PART NUMBER	PART NUMBER	RECOMMENDED GROOVE DIMENSIONS (±0.002)		
		A	WIDTH	HEIGHT
	8863-0184	0.032 (0,8)	0.036 (0,9)	0.026 (0,7)
M83528/001X003	8863-0110	0.062 (1,6)	0.066 (1,7)	0.050 (1,3)
M83528/001X009	8863-0145	0.125 (3,2)	0.133 (3,4)	0.100 (2,5)
M83528/001X013	8863-0202	0.374 (9,5)	0.400 (10,2)	0.300 (7,6)

EMI-DS-ECE072 1212

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