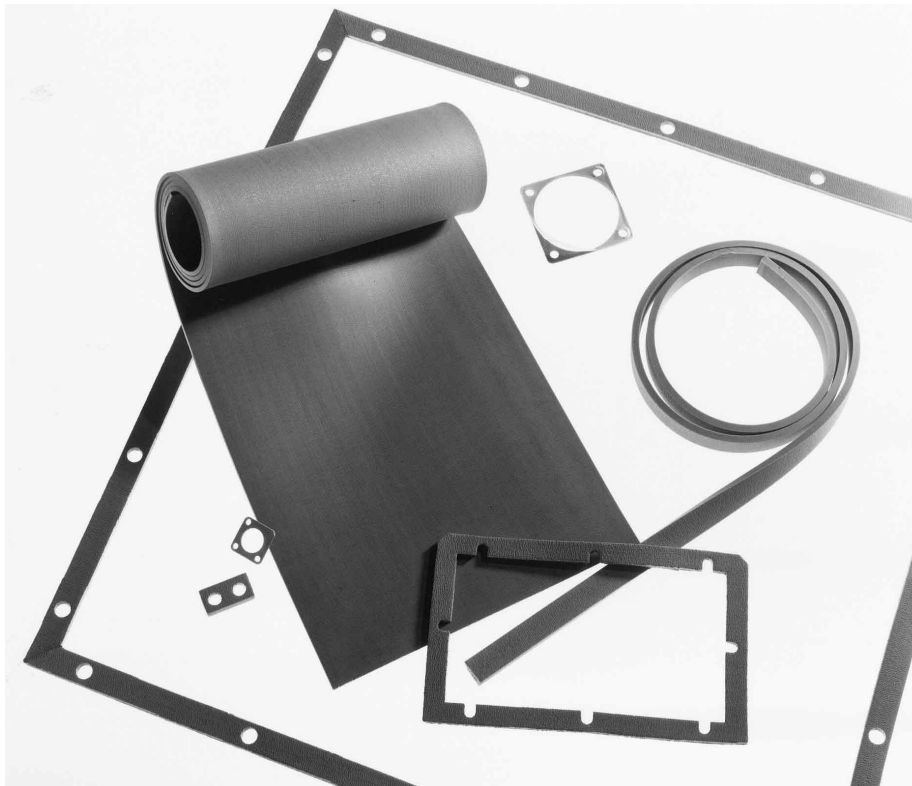


# POLASHEET®/POLASTRIP® Gasketing



## POLASHEET and POLASTRIP Gasketing with Weather Seal

POLASHEET and POLASTRIP gasketing are composite EMI shielding and weather sealing materials. Either solid or sponge silicone may be specified as the weather seal.

In POLASHEET gasketing, individual monel or aluminum wires embedded in the silicone and oriented perpendicular to mating flange surfaces provide the EMI shielding. Wires are crimped for resiliency. Solid silicone POLASHEET gasketing is available with high-tack pressure-sensitive adhesive backing.

In POLASTRIP gasketing, EMI shielding is provided by monel or aluminum knitted wire mesh embedded in silicone.

POLASHEET and POLASTRIP gasketing with solid silicone weather seal are recommended for sealing under high pressure conditions. The silicone seal is rated for use at temperatures from -70°F (-56.7°C) to +500°F (+260°C). Sponge silicone is used only for pressures below 5 psi (0.03 MPa) and for rain, drip, dust and ventilating air seals.

For particularly severe pressure-sealing requirements, up to 250 psi (1.72 MPa), COMBOPOLASTRIP® gasketing is available. In this configuration, the conductive paths are molded into only 0.250 in. (6.35 mm) of the width of the gasket.

POLASHEET materials are supplied in sheet form, from which

custom gaskets can be readily cut. Even intricate gaskets can be cut with inexpensive rule dies, and custom gaskets can be factory-fabricated to customer specifications.

POLASTRIP gaskets are supplied in strip form or as finished custom gaskets fabricated from strips. For gaskets with overall dimensions less than 4.5 in. (114 mm), die-cut sheets are recommended rather than spliced strips.

### Ordering Procedure

#### Standard Sheets and Strips:

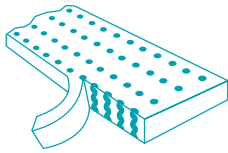
Select part number from Tables 2, 4 or 5. Standard widths for solid silicone sheets are 3.0 in. (76 mm), 4.5 in. (114 mm), 6.0 in. (152 mm) and 9 in. (229 mm) by 3 feet (91 cm) long. Widths of more than 9.0 in. are supplied as two or more widths bonded together.

Order quantities for strips should be multiples of 3 feet (91 cm) or 18 feet (5.48 m). Non-standard widths may be supplied as bonded sheets. Sponge silicone is available in standard 3.0 in. (76 mm) width by 3 feet (91 cm) length. POLA sponge is available in sheets. Contact Chomerics' Applications Engineering Department for more information.

**Custom Gaskets:** Provide a drawing and specify material part number from tables.

Table 1

SPECIFICATIONS		
<b>Elastomer:</b> Solid silicone rubber per Fed. Spec. ZZ-R-765, Class 2B, Grade 40; or silicone sponge per AMS-3195. Color, gray.		
<b>Finished Product Specifications:</b>		
Tensile Strength, psi, min. . . . .	250 . . . . .	ASTM-D412
Elongation, % min. . . . .	200 . . . . .	ASTM-D412
Hardness, Shore A Durometer . . . . .	35 ±5 . . . . .	ASTM-D2240
Tear Strength, lb/in. min. . . . .	45 . . . . .	ASTM-D624
Compression Set, max. % . . . . .	20 . . . . .	ASTM-D395B
Wire Density, per sq. in. . . . .	900 ±15%	
<b>Wire Data:</b>		
	<b>Monel</b>	<b>Aluminum</b>
Material	QQ-N-281	Alloy 5056 AMS-4182
Diameter	0.0045 in. (0.11 mm)	0.005 in. (0.13 mm)



**Table 2**

POLASHEET COMPOSITE GASKETING			
Thickness	Width*	Solid Silicone with Monel**	Sponge Silicone with Monel**
<b>Part Number</b>			
0.032 +0.010 -0.005 (0.813 +0.25 -0.13)	3.0 (76.20)	07-0701-3003	-
	4.5 (114.30)	07-0701-4503	-
	6.0 (152.40)	07-0701-6003	-
	9.0 (228.60)	07-0701-9003	-
0.045 +0.010 -0.005 (1.143 +0.25 -0.13)	3.0 (76.20)	07-0701-3004	-
	4.5 (114.30)	07-0701-4504	-
	6.0 (152.40)	07-0701-6004	-
	9.0 (228.60)	07-0701-9004	-
0.055 +0.010 -0.005 (1.40 +0.25 -0.13)	3.0 (76.20)	07-0701-3005	-
	4.5 (114.30)	07-0701-4505	-
	6.0 (152.40)	07-0701-6005	-
	9.0 (228.60)	07-0701-9005	-
0.062 ±0.010 (1.57 ±0.25)	3.0 (76.20)	07-0701-3006	-
	4.5 (114.30)	07-0701-4506	-
	6.0 (152.40)	07-0701-6006	-
	9.0 (228.60)	07-0701-9006	-
0.094 ±0.010 (2.38 ±0.25)	3.0 (76.20)	07-0701-3009	07-0801-3009***
	4.5 (114.30)	07-0701-4509	-
	6.0 (152.40)	07-0701-6009	-
	9.0 (228.60)	07-0701-9009	-
0.125 ±0.010 (3.18 ±0.25)	3.0 (76.20)	07-0701-3012	07-0801-3012***
	4.5 (114.30)	07-0701-4512	-
	6.0 (152.40)	07-0701-6012	-
	9.0 (228.60)	07-0701-9012	-
0.156 ±0.010 (3.96 ±0.25)	3.0 (76.20)	07-0701-3015	-
	4.5 (114.30)	07-0701-4515	-
	6.0 (152.40)	07-0701-6015	-
	9.0 (228.60)	07-0701-9015	-
0.188 ±0.010 (4.75 ±0.25)	3.0 (76.20)	07-0701-3018	07-0801-3018***
	4.5 (114.30)	07-0701-4518	-
	6.0 (152.40)	07-0701-6018	-
	9.0 (228.60)	07-0701-9018	-
0.250 ±0.010 (6.35 ±0.25)	3.0 (76.20)	07-0701-3025	07-0801-3025***
	4.5 (114.30)	07-0701-4525	-
	6.0 (152.40)	07-0701-6025	-
	9.0 (228.60)	07-0701-9025	-

\*Solid silicone sheets available in 9.0 in. (229 mm) widths with no bonds.

\*\*Monel is preferred. For aluminum, change 01 in 0701 or 0801 to 02.

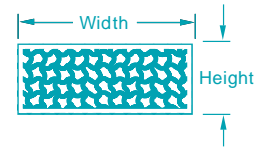
\*\*\*In these cases, 3.0 in. (76 mm) width is formed by bonding 1.0 in. (25.4 mm) wide strips. Each sheet has 2 bonds. For wider sheets without bonds, inquire—substantial minimum order requirements apply.

**Note:** Solid silicone POLASHEET is also available with pressure-sensitive adhesive backing. Add-77 to end of part number.

**Table 3**

POLASHEET DESIGN PARAMETERS	
<b>A</b> Dimensional Tolerances <10 (<254) 10 to 15 (254 to 381) >15 (>381)	±0.010 (0.25) ±0.020 (0.51) ±0.20% of Nom. Dim.
<b>B</b> Min. Width	0.125 (3.18)
<b>C</b> Min. Wall Thickness	0.080 (2.03)
<b>D</b> Min. Hole Diameter	0.060 (1.52)
<b>E</b> Slot	If min. wall thickness <b>C</b> cannot be accommodated, holes should be changed to slots.

(mm dimensions in parentheses)

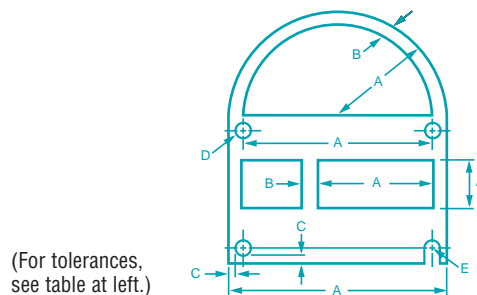


**Table 4**

(Tolerances shown on next page)

POLASTRIP GASKETING			
Height	Width	Solid Silicone with Monel*	Sponge Silicone with Monel*
<b>Part Number</b>			
0.062 (1.57)	0.093 (2.36)	07-0101-0400	-
0.062 (1.57)	0.125 (3.18)	07-0101-0358	-
0.062 (1.57)	0.188 (4.78)	07-0101-0364	-
0.062 (1.57)	0.250 (6.35)	07-0101-0293	-
0.062 (1.57)	0.312 (7.92)	07-0101-0395	-
0.062 (1.57)	0.375 (9.53)	07-0101-0300	-
0.062 (1.57)	0.500 (12.70)	07-0101-0377	-
0.062 (1.57)	0.625 (15.88)	07-0101-0418	-
0.093 (2.36)	0.093 (2.36)	07-0101-0255	07-0201-0285
0.093 (2.36)	0.125 (3.18)	07-0101-0366	07-0201-0427
0.093 (2.36)	0.188 (4.78)	07-0101-0312	07-0201-0311
0.093 (2.36)	0.250 (6.35)	07-0101-0230	07-0201-0508
0.093 (2.36)	0.312 (7.92)	07-0101-0598	07-0201-0607
0.093 (2.36)	0.375 (9.53)	07-0101-0426	07-0201-0608
0.093 (2.36)	0.500 (12.70)	07-0101-0257	07-0201-0237
0.093 (2.36)	0.625 (15.88)	07-0101-0370	07-0201-0243
0.125 (3.18)	0.125 (3.18)	07-0101-0004	07-0201-0032
0.125 (3.18)	0.188 (4.78)	07-0101-0020	07-0201-0034
0.125 (3.18)	0.250 (6.35)	07-0101-0010	07-0201-0013
0.125 (3.18)	0.312 (7.92)	07-0101-0024	07-0201-0040
0.125 (3.18)	0.375 (9.53)	07-0101-0028	07-0201-0044
0.125 (3.18)	0.500 (12.70)	07-0101-0088	07-0201-0090
0.125 (3.18)	0.625 (15.88)	07-0101-0152	07-0201-0158
0.156 (3.96)	0.125 (3.18)	07-0101-0096	07-0201-0097
0.188 (4.78)	0.125 (3.18)	07-0101-0019	07-0201-0033
0.188 (4.78)	0.188 (4.78)	07-0101-0011	07-0201-0014
0.188 (4.78)	0.250 (6.35)	07-0101-0021	07-0201-0037
0.188 (4.78)	0.312 (7.92)	07-0101-0025	07-0201-0041
0.188 (4.78)	0.375 (9.53)	07-0101-0120	07-0201-0121
0.188 (4.78)	0.500 (12.70)	07-0101-0089	07-0201-0091
0.188 (4.78)	0.625 (15.88)	07-0101-0153	07-0201-0159
0.250 (6.35)	0.125 (3.18)	07-0101-0100	07-0201-0101
0.250 (6.35)	0.188 (4.78)	07-0101-0017	07-0201-0035
0.250 (6.35)	0.250 (6.35)	07-0101-0003	07-0201-0012
0.250 (6.35)	0.312 (7.92)	07-0101-0026	07-0201-0042
0.250 (6.35)	0.375 (9.53)	07-0101-0029	07-0201-0045
0.250 (6.35)	0.500 (12.70)	07-0101-0031	07-0201-0015
0.250 (6.35)	0.625 (15.88)	07-0101-0154	07-0201-0160
0.312 (7.92)	0.188 (4.78)	07-0101-0016	07-0201-0036
0.312 (7.92)	0.250 (6.35)	07-0101-0022	07-0201-0038
0.312 (7.92)	0.312 (7.92)	07-0101-0027	07-0201-0043
0.312 (7.92)	0.375 (9.53)	07-0101-0124	07-0201-0125
0.312 (7.92)	0.500 (12.70)	07-0101-0136	07-0201-0137

\*Monel is preferred but aluminum is also available on special order. Contact Chomerics for part numbers.



(For tolerances, see table at left.)

**Figure 1** Dimensions for POLASHEET Die-Cut Gaskets

continued

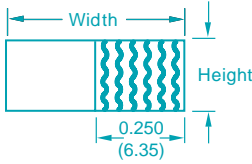


Table 5

COMBO POLASTRIP GASKETING			
Height	Width	Solid Silicone with Monel	Sponge Silicone with Monel
Part Number			
0.062 (1.57)	0.500 (12.70)	07-0101-0256	—
0.062 (1.57)	0.625 (15.88)	07-0101-0259	—
0.062 (1.57)	0.750 (19.05)	07-0101-0260	—
0.093 (2.36)	0.500 (12.70)	07-0101-0298	07-0201-0552
0.093 (2.36)	0.625 (15.88)	07-0101-0545	07-0201-0553
0.093 (2.36)	0.750 (19.05)	07-0101-0547	07-0201-0555
0.125 (3.18)	0.500 (12.70)	07-0101-0177	07-0201-0188
0.125 (3.18)	0.625 (15.88)	07-0101-0178	07-0201-0189
0.125 (3.18)	0.750 (19.05)	07-0101-0179	07-0201-0190
0.188 (4.78)	0.500 (12.70)	07-0101-0181	07-0201-0192
0.188 (4.78)	0.625 (15.88)	07-0101-0182	07-0201-0193
0.188 (4.78)	0.750 (19.05)	07-0101-0183	07-0201-0194
0.250 (6.35)	0.500 (12.70)	07-0101-0184	07-0201-0195
0.250 (6.35)	0.625 (15.88)	07-0101-0185	07-0201-0196
0.250 (6.35)	0.750 (19.05)	07-0101-0186	07-0201-0197

Table 7

POLASTRIP AND COMBO POLASTRIP GASKETING TOLERANCES				
Sizes	Solid Silicone		Sponge Silicone	
	Height	Width	Height	Width
0.125 to 0.250 (3.18 to 6.35)	±0.010 (±0.25)	±0.015 (±0.38)	±0.015 (±0.38)	±0.031 (±0.79)
0.251 to 0.375 (6.38 to 9.53)	±0.015 (±0.38)	±0.031 (±0.79)	±0.015 (±0.38)	±0.031 (±0.79)
0.376 to 1.00 (9.55 to 25.4)	+0.030, -0.015 (+0.79, -0.38)	±0.031 (±0.79)	±0.031 (±0.79)	±0.046 (±1.17)

Table 6

TOLERANCES FOR FABRICATED GASKET DIMENSIONS IN FIGURE 2			
Dimensions	0-12.0 (0-30 cm)	12.1-24.0 (31-61 cm)	24.1-36.0 (61-91 cm)
A, B	±0.03 (±0.76)	±0.06 (±1.52)	±0.12 (±3.05)
C	(Width) See Tables 4, 5 and 7.		
D	±0.02 (±0.51)	±0.02 (±0.51)	±0.02 (±0.51)
E, F, G, H, J, K	±0.02 (±0.51)	±0.04 (±1.02)	±0.06 (±1.52)
L	±0.02 (±0.51)	±0.02 (±0.51)	±0.02 (±0.51)
T	(Height) See Tables 4, 5 and 7.		

Notes:

1. Joint bonded with RTV silicone adhesive.
2. When B dim. is less than 4.5 inches (113 mm), POLASHEET, rather than POLASTRIP, gasketing may be used.
3. Die-cut gaskets should be inspected for dimensional compliance in a restrained condition.

(mm dimensions in parentheses)

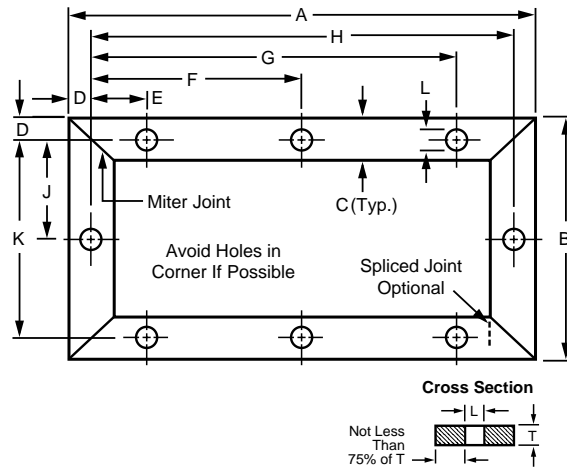


Figure 2 Dimensions and Tolerances for POLASTRIP and COMBOPOLASTRIP Fabricated Gaskets