

SOFT-SHIELD® 3700

Plated-Fabric Wrapped Foam EMI Shielding Gaskets for High Temperature Operation



Customer Value Proposition

Parker Chomerics SOFT-SHIELD® 3700 fabric-over-foam (FoF) EMI shielding gaskets are low-closure EMI shielding gaskets for indoor applications. Available in strip form, SOFT-SHIELD 3700 is designed to be used in elevated temperature applications where continuous operating temperatures of 125°C or less are required. SOFT-SHIELD 3700 is flammability rated to UL 94 V-0 and is available with rectangle or square profile cross sections, each engineered to optimize mechanical form, fit and function while also optimizing electrical performance.

By combining the shielding effectiveness of an electrically conductive fabric along with the conformability afforded by a foam core construction, SOFT-SHIELD 3700 ensures both high shielding and reliability for the life of the equipment.

It is offered exclusively in a nickel-plated copper polyester woven RipStop fabric, which is wrapped around urethane foam.

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The fabric is resistant to oxidation thus delivering years of shielding and electrical grounding.

SOFT-SHIELD 3700's wrap around technology grounds the gasket from point to point, ultimately eliminating any EMI gaps, and typically requires less than 1 lb/in (0.175 N/mm) closure force, making it effective for low-closure-force applications.

SOFT-SHIELD 3700 takes less than 10% compression set, less than most other fabric-over-foam EMI gaskets on the market. This results in more reliable and repeatable shielding performance, is an excellent alternative shielding solution to traditional spring finger type products and makes this product family one of the most versatile EMI FoF products offered to the market.

Product Features

- Operating temperature range from -40°C to 125°C
- >100 dB shielding effectiveness from 100 MHz to 10 GHz
- Low closure force for optimum performance
- Low compression set of less than 10%
- Available in square and rectangular cross-sections, and can be cut to length or die cut to readily fit a design
- Offered exclusively with conductive pressure sensitive adhesive (PSA)
- Nickel-plated copper polyester woven RipStop fabric
- Abrasion / shear resistant conductive jackets
- RoHS, REACH and UL 94 V-0 compliant



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SOFT-SHIELD® 3700

Typical Applications

- Between screws and chassis
- Panel seals
- Cover seals
- Door seals
- Grounding tabs
- Vent seals
- Improved ground paths

Available Profiles

Contact Parker Chomerics for any other special requirements and an updated profile list.



Table 1 - Rectangle Profiles inches (mm)

Profile	Shape	Height ±0.020 (0.51)	Width ±0.020 (0.51)
1008	Rect.	0.075 (1.91)	0.118 (2.99)
1003	Rect.	0.075 (1.91)	0.157 (3.99)
1011	Rect.	0.075 (1.91)	0.197 (5.00)
1004	Rect.	0.075 (1.91)	0.236 (5.99)
1012	Rect.	0.075 (1.91)	0.276 (7.01)
1005	Rect.	0.075 (1.91)	0.315 (8.00)
1013	Rect.	0.075 (1.91)	0.394 (10.00)
1014	Rect.	0.075 (1.91)	0.472 (11.99)
1009	Rect.	0.075 (1.91)	0.500 (12.70)
1015	Rect.	0.075 (1.91)	0.591 (15.01)
1016	Rect.	0.075 (1.91)	0.827 (21.00)
1017	Rect.	0.075 (1.91)	0.984 (24.99)
1007	Rect.	0.075 (1.91)	1.614 (40.99)
1010	Rect.	0.075 (1.91)	1.890 (48.00)
1024	Rect.	0.105 (2.67)	0.157 (3.99)
1018	Rect.	0.105 (2.67)	0.197 (5.00)
1023	Rect.	0.105 (2.67)	0.236 (5.99)
1000	Rect.	0.105 (2.67)	0.250 (6.35)
1021	Rect.	0.105 (2.67)	0.264 (6.71)
1025	Rect.	0.105 (2.67)	0.375 (9.53)
1022	Rect.	0.105 (2.67)	0.394 (10.00)
1001	Rect.	0.105 (2.67)	0.500 (12.70)

Table 1 - Rectangle Profiles inches (mm) - continued

Profile	Shape	Height ±0.020 (0.51)	Width ±0.020 (0.51)
1020	Rect.	0.105 (2.67)	0.512 (13.00)
1019	Rect.	0.105 (2.67)	0.826 (20.98)
1027	Rect.	0.137 (3.48)	0.197 (5.00)
1026	Rect.	0.137 (3.48)	0.354 (8.99)
1028	Rect.	0.137 (3.48)	0.512 (13.00)
1029	Rect.	0.137 (3.48)	0.826 (20.99)
1030	Rect.	0.200 (5.08)	0.137 (3.48)
1053	Rect.	0.200 (5.08)	0.250 (6.35)
1031	Rect.	0.200 (5.08)	0.295 (7.49)
1035	Rect.	0.200 (5.08)	0.315 (8.00)
1034	Rect.	0.200 (5.08)	0.394 (10.00)
1036	Rect.	0.200 (5.08)	0.591 (15.01)
1032	Rect.	0.200 (5.08)	1.949 (49.50)
1037	Rect.	0.262 (6.65)	0.512 (13.00)
1038	Rect.	0.262 (6.65)	1.000 (25.40)
1041	Rect.	0.387 (9.83)	0.394 (10.00)
1039	Rect.	0.387 (9.83)	0.591 (15.01)
1040	Rect.	0.387 (9.83)	0.787 (19.99)
1043	Rect.	0.387 (9.83)	0.787 (19.99)
1042	Rect.	0.394 (10.00)	0.262 (6.65)
1045	Rect.	0.512 (13.00)	0.387 (9.83)
1044	Rect.	0.512 (13.00)	0.512 (13.00)

SOFT-SHIELD® 3700 – Product Information

Table 2 - Tolerances

Dimensional Tolerances	
Minimum Wall Widths inches (mm) 0.060 (1.52)	
Cut Length inches (cm)	inches (mm)
Up to 5.00 (up to 12.7)	±0.030 (0.76)
5.01 to 10.00 (12.7 to 25.4)	±0.060 (1.52)
10.01 to 15.00 (25.4 to 38.1)	±0.070 (1.78)
15.01 to 20.00 (38.1 to 50.8)	±0.080 (2.03)
20.01 to 30.00 (50.8 to 76.2)	±0.100 (2.54)
30.01 to 48.00 (76.2 to 121.92)	±0.200 (5.08)
48.01 to 95.00 (121.92 to 241.3)	±0.250 (6.35)
Over 95.00 (over 241.3)	±0.500 (12.7)
Die-Cut inches (mm)	inches (mm)
Up to 10.00 (up to 254)	±0.020 (0.51)
10.01 to 20.00 (254.3 to 508)	±0.030 (0.76)
20.01 to 30.00 (508.3 to 762)	±0.040 (1.02)
Over 30.00 (over 762)	±0.060 (1.52)

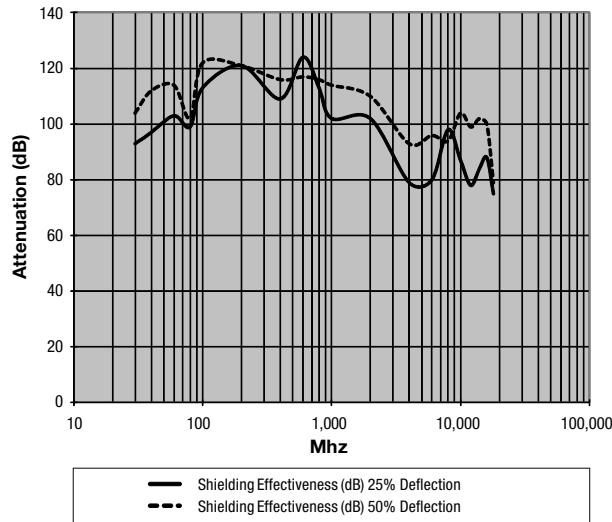
Table 3 - Typical Properties

SOFT-SHIELD® 3700 Typical Properties	Value	Test Method
Shielding Effectiveness, 50 MHz to 10 GHz	> 100 dB	CHO-TM-TP08
35% Compression Deflection, lb/in (N/mm), [0.105 x 0.500 in. gasket]	< 1 (< 0.175)	ASTM C165
Compression Set	< 10%	ASTM D3574
Operating Temperature Range	-40 to 125°C	--
Conductive Acrylic Adhesive Peel Strength, 90°b/inch (N/mm) [Min. value]	2 (0.35)	ASTM D1000
Recommended % Deflection Range	20 - 50%	--
Flammability	V-0	UL 94
Recommended Storage Conditions @ 50% Relative Humidity	70°F ± 20 (21°C ± 10)	--
Shelf Life, months from date of shipment	12*	--

* Possible extension of additional six (6) months. See Parker Chomerics Shelf Life Re-certification for Laminated Solutions document for procedure.

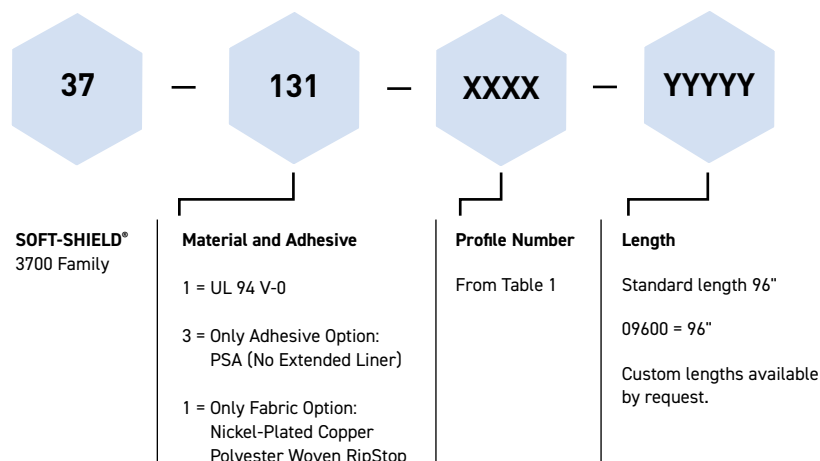
Figure 1

**Shielding Effectiveness (dB)
SOFT-SHIELD 3700**



SOFT-SHIELD® 3700 – Ordering Information

Part Numbering



Example Part Number: 37-131-1032-09600 (Description: SOFT-SHIELD 3700 Rated UL 94 V-0 with PSA in Nickel-Plated Copper Polyester Woven RipStop, Profile 1032 and 96 inches long)

Figure 2

Deflection vs Load - SOFT-SHIELD 3700 Profile 1001 @ 0.025 in/min

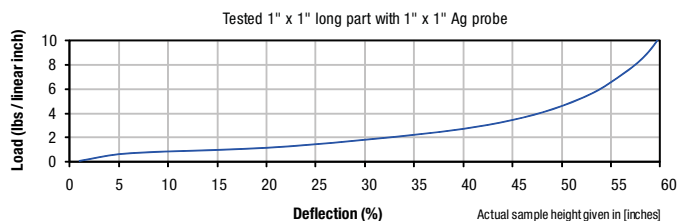
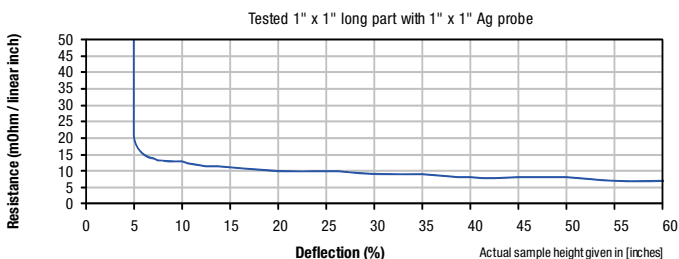


Figure 3

Deflection vs Resistance - SOFT-SHIELD 3700 Profile 1001 @ 0.025 in/min (1 inch long sample)



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