

SOFT-SHIELD® 4800

Multi-Planar Electrically Conductive Foam EMI Shielding Gaskets

Parker Chomerics SOFT-SHIELD® 4800 is a true multi-planar, Z-axis electrically conductive foam for indoor applications. It is based on the unique integration of electrically conductive silver-plated fibers into a low-density urethane foam, providing for a performance-driven, cost-effective EMI shielding solution. It offers greater EMI shielding performance from other SOFT-SHIELD products which may only consist of an electrically conductive jacket over traditional urethane foam.

Through the optimization of conductive fiber construction, loading and dispersion within the foam matrix, SOFT-SHIELD 4800 provides superb Z-axis conductivity with extremely short ground paths. Since the integrity of the base foam is uncompromised, SOFT-SHIELD 4800 offers exceptional physical and mechanical properties.

SOFT-SHIELD 4800 is flammability rated to UL 94 HF-1 and is available in bulk rolls or custom die cut shapes.

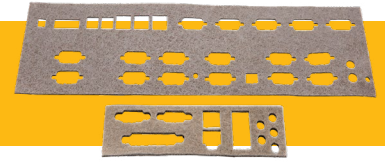
An acrylic pressure sensitive adhesive (PSA) is available on one side to optimize gasket adhesion and electrical interface resistance.

Contact Information

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Product Features

- 95 dB shielding effectiveness from 20 MHz to 10 GHz
- Stable electrical performance (through resistance) after multiple closure cycles
- Low compression set of less than 15%
- Available in bulk rolls or custom die cut shapes
- Z-axis conductivity allows compartmental shielding
- Offered with or without electrically conductive acrylic pressure sensitive adhesive (PSA)
- RoHS, REACH and UL 94 HH-1 compliant

Typical Applications

- I/O panels, backplanes, connectors, access panels and rectangular/square strip gasket seals

SOFT-SHIELD® 4800 Product Information

Typical Properties	SOFT-SHIELD 4840	Test Method
Shielding Effectiveness - 20 MHz to 10 GHz, dB	Average: 95	CHO-TM-TP08
Compression-Deflection - 3mm thick sample, psi (kPa) to resemble 4850 presentation	25% - 1.95 lb/inch 50% - 3.40 lb/inch	ASTM C165 (Modified)
Through-Resistance - 3 mm thick sample	(See Figure 1)	ASTM D991
Gasket Compression Set, %	<15	ASTM D3574
Tensile Strength - 3mm thick sample, psi (MPa)	306 (2.1)	ASTM D412 (Modified)
Electrically Conductive Acrylic PSA Peel Strength, oz/in	45	ASTM D1000 (Modified to 90° peel)
Recommended % Deflection Range, %	5 - 50	--
Flammability (See UL File Number TBD)	HF-1	UL 94
NASA Outgassing, % TML (% CVCM)	Not Tested	ASTM E595
Operating Temperature °F (°C)	-40 to 158 (-40 to 70)	--
Recommended Storage Conditions @ 50% Relative Humidity °F (°C)	70 ± 20 (21 ± 10)	--
Shelf Life with PSA, months from date of shipment	12*	--
Shelf Life (no adhesive)	Indefinite	--

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

SOFT-SHIELD 4800 Electrical Stability (Through-Resistance)			
Property	Typical Value (ohm/in ²)		Test Method
Initial Through Resistance	Gasket Deflection		ASTM C165 (Modified)
	25%	50%	
	0.035	0.009	
Heat Aging	0.048	0.018	75o C - 168 Hours
High Temp / High Humidity	0.017	0.010	85o C / 95% RH - 48 Hours
Temperature Cycling	0.038	0.028	-40o C / +65o C - 96 Hours 30 min. dwell at temp. 10 min. ramp time
Compression Cycling	0.069	0.024	1000 Compression Cycles (0-50% gasket deflection)

Dimensional Tolerances	
Minimum Wall Width inches (mm), 0.100 (2.54)	
Die-Cut inches (mm)	inches (mm)
Up to 20.00 (up to 508)	±0.020 (0.51)
20.01 to 30.00 (508.3 to 762)	±0.030 (0.76)
Over 30.00 (over 762)	±0.060 (1.52)
Standard Thicknesses inches (mm)	inches (mm)
0.040 (1)	±0.020 (0.51)
0.060 (1.5)	±0.020 (0.51)
0.079 (2)	±0.020 (0.51)
0.118 (3)	±0.020 (0.51)
0.157 (4)	±0.020 (0.51)
0.197 (5)	±0.020 (0.51)

All thicknesses are tolerated at ± 0.5mm (± .020")

Figure 1

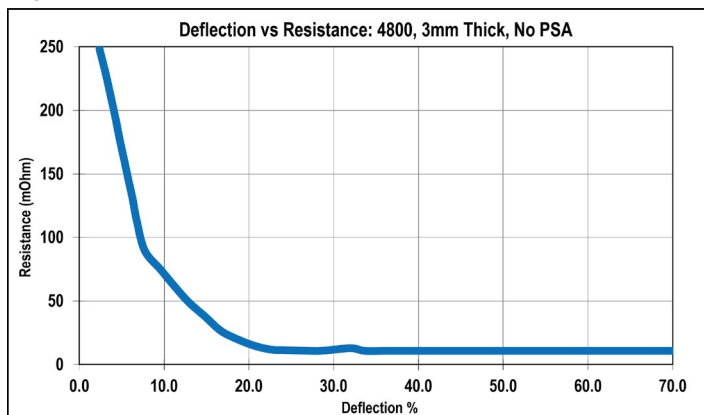
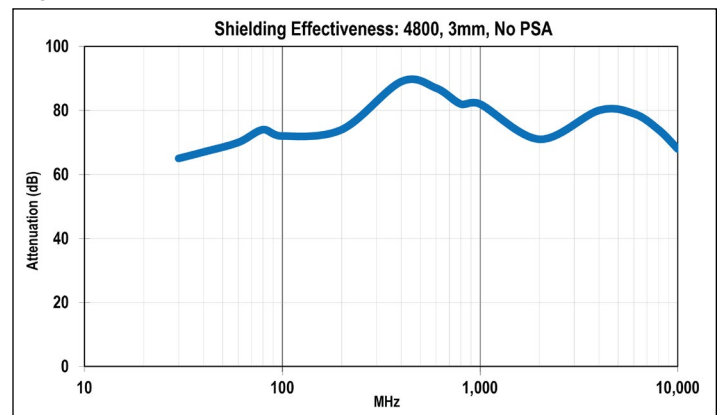
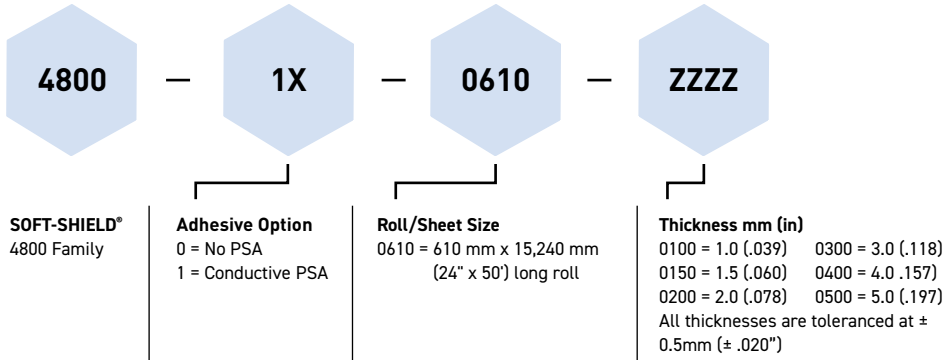


Figure 2



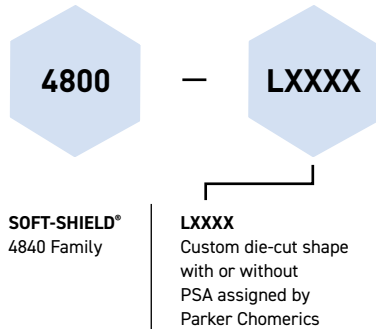
SOFT-SHIELD® 4800 Ordering Information

Part Numbering – 50 ft long bulk rolls and sheets



For custom die-cut parts, contact Parker Chomerics Inside Sales.

Custom Part Numbering



www.marianinc.com

1-800-773-0062

Talk to an Expert about Your Project



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