# SOFT-SHIELD<sup>®</sup> 4850-STRIP

Multi-Planar Electrically Conductive Foam EMI Shielding Gaskets



### **Customer Value Proposition**

Parker Chomerics SOFT-SHIELD® 4850-STRIP is the same multi-planar, Z-axis electrically conductive foam as SOFT-SHIELD 4850, but in a convenient strip format. SOFT-SHIELD 4850-STRIP is based on the unique integration of electrically conductive silver-plated fibers into a low-density urethane foam, providing for a performance-driven, costeffective EMI shielding solution for indoor applications. SOFT-SHIELD 4850-STRIP 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 4850-STRIP provides superb Z-axis conductivity with extremely short ground paths. Since the integrity of the base foam is uncompromised, SOFT-SHIELD 4850-STRIP offers exceptional physical and mechanical properties.

### **Contact Information**

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SOFT-SHIELD 4850-STRIP is flammability rated to UL 94 V-0 and is available in strip form in various widths, thicknesses and lengths. A uniform (silver-plated, copper particle) electrically conductive acrylic pressure sensitive adhesive (PSA) is available on one side to help secure after installation.

### **Product Features**

- Conveniently pre-cut strips are ready to apply
- 95 dB shielding effectiveness from 20 MHz to 10 GHz
- Low compression set of less
  than 15%
- Stable electrical performance (through resistance) after multiple closure cycles
- Excellent through resistance (< 30 milliohm @ 25% gasket deflection)

- Non-nickel bearing material (silver-plated fibers)
- Available in strips with standard widths and thicknesses and various length options
- Z-axis conductivity allows compartmental shielding
- At low deflection (15%) demonstrates optimal electrical performance
- Offered with or without electrically conductive acrylic pressure sensitive adhesive (PSA)
- RoHS, REACH and UL 94 V-0 compliant

### **Typical Applications**

- Panel seals
- Cover seals
- Grounding pads
- Door seals





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# SOFT-SHIELD<sup>®</sup> 4850-STRIP – Product Information

#### **Table 1 - Typical Properties**

Typical Properties	SOFT-SHIELD® 4850-STRIP	Test Method	
Compression-Deflection 3 mm thick sample	25% - 2.5 psi (17.2 kPa) 50% - 4.3 psi (29.6 kPa)	ASTM C165 (Modified)	
Shielding Effectiveness 20 MHz to 10 GHz	Average: 70-80 (dB)	CHO-TM-TP08	
Gasket Compression Set	<15%	ASTM D3574	
Tensile Strength 3 mm thick sample	9.9 lbs/in² (68.3 kPa)	ASTM D412 (Modified)	
Electrically Conductive Acrylic PSA Peel Strength	15 oz/inch	ASTM D1000 (Modified to 90° peel)	
Recommended % Deflection Range	15 - 50%		
Flammability	V-0	UL 94	
Operating Temperature	-40° to 70°C		
Recommended Storage Conditions @ 50% Relative Humidity	70°F ± 20 (21°C ± 10)		
Shelf Life, months from date of shipment	24*		

\*Possible extension of additional twelve (12) months. See Parker Chomerics Shelf Life Re-certification for Laminated Solutions document for procedure. Infinite shelf life for non-PSA part numbers.

#### Figure 1



#### Deflection vs Resistance - SOFT-SHIELD 4850 w/Conductive PSA (4850-12)@ 0.05 in/min (1 sq inch area sample)

#### Table 2 - Standard Parts

	Thickness (mm)						
	1.0	1.5	2.0	3.0	4.0	5.0	
	2.5	2.5	2.5	2.5	N/A	N/A	
	3.0	3.0	3.0	3.0	3.0	N/A	
	4.0	4.0	4.0	4.0	4.0	4.0	
	4.5	4.5	4.5	4.5	4.5	4.5	
Ē	5.0	5.0	5.0	5.0	5.0	5.0	
	6.0	6.0	6.0	6.0	6.0	6.0	
Width (mm)	6.5	6.5	6.5	6.5	6.5	6.5	
idth	7.0	7.0	7.0	7.0	7.0	7.0	
ž	8.0	8.0	8.0	8.0	8.0	8.0	
	9.0	9.0	9.0	9.0	9.0	9.0	
	10.0	10.0	10.0	10.0	10.0	10.0	
	12.0	12.0	12.0	12.0	12.0	12.0	
	13.0	13.0	13.0	13.0	13.0	13.0	
	15.0	15.0	15.0	15.0	15.0	15.0	

#### Figure 2





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## SOFT-SHIELD<sup>®</sup> 4850-STRIP – Ordering Information



EXAMPLE: 4850-12-015-065-06096 = 4850-STRIP part with a conductive PSA and dimensions of 1.5 mm thick by 6.5 mm wide by 609.6 mm long.

Custom widths and lengths available. Contact Parker Chomerics with inquiries.

#### www.parker.com/chomerics

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