

METALASTIC™

Expanded or Woven EMI Gasketing with or without Pressure Seal



METALASTIC

Parker Chomerics METALASTIC gasketing is a family of metal-based gasketing technologies available with or without elastomer binder. Material is produced in thin sheets that can be cut into custom geometries to meet application specific needs.

Because of the high metal content of METALASTIC, this material is an extremely durable and electrically conductive gasketing solution. METALASTIC is an economical solution for applications requiring high-pressure sealing and/or high levels of EMI shielding (waveguides, connectors, etc.).

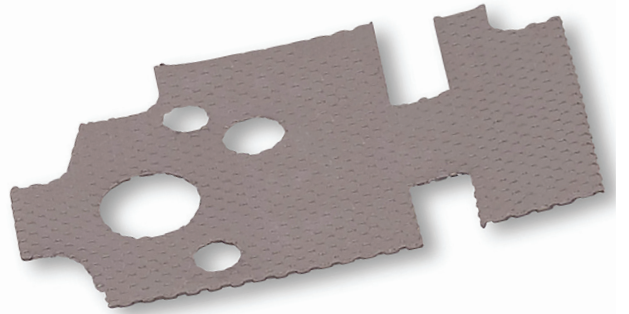
Metal form factors available are woven wire or expanded foil. Woven gaskets are recommended for applications that require optimized durability. Foils are recommended for applications that require galvanic considerations beyond aluminum.

Contact Information:

Parker Hannifin Corporation
Chomerics Division
77 Dragon Court
Woburn, MA 01801

phone 781 935 4850
fax 781 933 4318
chomailbox@parker.com

www.chomerics.com
www.parker.com/chomerics



Mating surface interaction should also be considered when making a METALASTIC metal choice. Foils have a more uniform dispersion of interfacial force when compared to woven metal and the associated overlapping wires. This avoids stress points and the potential negative affects (stress fatigue, cracking, etc.). Woven wires promote less mating surface disturbance when compared to the sharp surface associated with expanded metals (minor scratching, scoring, etc.).

Elastomer options for METALASTIC range from no fill (for non-sealing applications) to elastomer choices such as fluorosilicone, silicone, neoprene and urethane gel. Care should be taken in reviewing environmental exposure performance requirements when making an elastomer choice. Variables such as chemical resistance and temperature thresholds are leading contributors to the elastomer selection process.

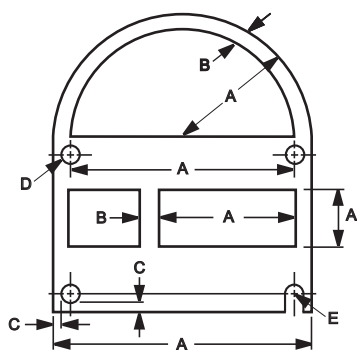
Due to the thin construction of METALASTIC, care should be taken when designing this solution into an application. METALASTIC with woven wires is intended for use in applications where joint unevenness is less than 0.002 in. (0.05 mm). METALASTIC with expanded foil is intended for use in applications where joint unevenness is less than 0.003 in. (0.08 mm).

METALASTIC and PORCUPINE METALASTIC - Product Information

STANDARD MATERIAL SPECIFICATIONS					
Gasketing Types	ELASTOMERS			METALS	
	Solid Silicone*	Solid Neoprene*	Urethane Gel	Aluminum	Monel
METALASTIC® (expanded foil in elastomer)	A-A-59588 Class 2B Grade 50	-	Custom Formulation	QQ-A-250/2 3003 AL	QQ-N-281 (expanded)
METALASTIC® (woven wire in elastomer)	AMS 3302D	AMS-3222	-	Alloy 5056 AMS-4182	-

* Temperature Ranges: Silicone-solid, EXPANDED FOIL & WOVEN WIRE METALASTIC gasketing: [A-A-59588 Class 2B Grade 50], -65° to +500°F (-54° to +260°C). Neoprene-solid, WOVEN WIRE METALASTIC gasketing: AMS-3222, -65° to +500°F (-54° to +260°C).

Dimensions for METALASTIC Die-Cut Gaskets



(Fully dimensioned drawings required)

METALASTIC GASKET TOLERANCES inches (mm)		
DIMENSIONS		TOLERANCES
A All Die-cut Dimensions		±0.015 (±0.38)
B Min. Width	Expanded Foil	0.140 (3.56)
	Woven Wire	0.125 (3.18)
C Min. Wall Thickness	Expanded Foil	0.090 (2.28)
	Woven Wire	0.080 (2.03)
D Slot		If min. wall thickness C cannot be accommodated, holes should be changed to slots.

Table 1

WOVEN WIRE METALASTIC SHEETS inches (mm)				
Thickness	Material	Filled	Width	Part No.
0.016 ±0.004 (0.40 ±0.10)	Aluminum	Silicone	8.00 +0.25 -0.00	04-0502
	Aluminum	Fluorosilicone		04-1802
	Aluminum	Neoprene		04-0602
0.020 ±0.004 (0.51 ±0.10)	Aluminum	Silicone	[203 +6.35 -0.00]	04-0102
	Aluminum	Fluorosilicone		04-2002
	Aluminum	Neoprene		04-0202

Ordering Information

Sheet gasketing: Order by part number from **Table 1** or **2**. All WOVEN WIRE METALASTIC sheets are 8.0 in. wide (20.32 cm), and EXPANDED FOIL METALASTIC sheets are 12 in. (30.4 cm) wide. Both are supplied in continuous lengths. Custom die-cut gaskets: Specify material from the table by part number and submit a drawing. For gaskets exceeding standard width, a miter or ovetail joint is recommended. For additional assistance, contact Parker Chomerics Applications Engineering Department.

Table 2

EXPANDED FOIL METALASTIC SHEETS inches (mm)					
Thickness	Material	Filled	Width	Length	Part No.
0.020 ±0.004 (0.51 ±0.10)	Monel	No	12.00 ±0.25 (305 ±6.35)	Continuous	08-0601
	Monel	Silicone			08-0201
	Monel	Fluorosilicone			08-1701
	Aluminum	No			08-0602
	Aluminum	Silicone			08-0202
	Aluminum	Fluorosilicone			08-1702
	0.030 ±0.004 (0.76 ±0.10)	Monel			No
Monel		Silicone	08-0101		
Monel		Fluorosilicone	08-1001		
Aluminum		No	08-0502		
Aluminum		Silicone	08-0102		
Aluminum		Fluorosilicone	08-1002		
0.030 ±0.008 (0.76 ±0.20)		Aluminum only	Urethane Gel only	12.00 ±0.25 (305 ±6.35)	Continuous
0.055 ±0.008 (1.4 ±0.20)	Aluminum only	Urethane Gel only	22.00 (558.8) available upon request		

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