

SF 5000 is an NBR bound sheet reinforced with carbon and aramid fibers. SF 5000 is suitable for use in a wide range of industrial applications including oils, fuels, steam, water and dilute acids. SF 5000 is especially suitable for sealing caustic liquors. Properties based on 1/32" thick material, except as otherwise noted.

SERVICE

Max T (at min. thickness)	824°F (440°C)
Max P (at min. thickness)	2030 psi (14.0 MPa)
pH Range	3 - 14

PHYSICAL PROPERTIES

Color	Black
Density	100 lb/ft ³ (1.60g/cc)
Sheet Thickness	1/64" - 1/8" (0.50 mm - 3.20 mm)
Sheet Size	60" x 60", 60" x 120" (1.50 m x 1.50 m, 1.5 m x 3.0 m)

MECHANICAL PROPERTIES (ASTM F152)

Cross Grain Tensile	2625 psi (18.1 MPa)
With Grain Tensile	7005 psi (48.3 MPa)

IMMERSION PROPERTIES (ASTM F146)

Thickness Increase	Oil #3 @ 300°F	3%
	Fuel B @ 70 - 85°F	5%
Weight Increase	Oil #3 @ 300°F	10%
	Fuel B @ 70 - 85°F	12%

SEALING PROPERTIES

ASTM F36J	Compressibility	7.5%
	Recovery	64%
ASTM F37A	Fuel A @ 50 psi & 1000 psi Gasket Stress	0.87 mL/hr
ASTM F38	Creep Relaxation	22.2%
BS 7531	Nitrogen Gas Permeability	0.05 mL/min



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Distributed & Fabricated by:

**ESSENTIAL SEALING
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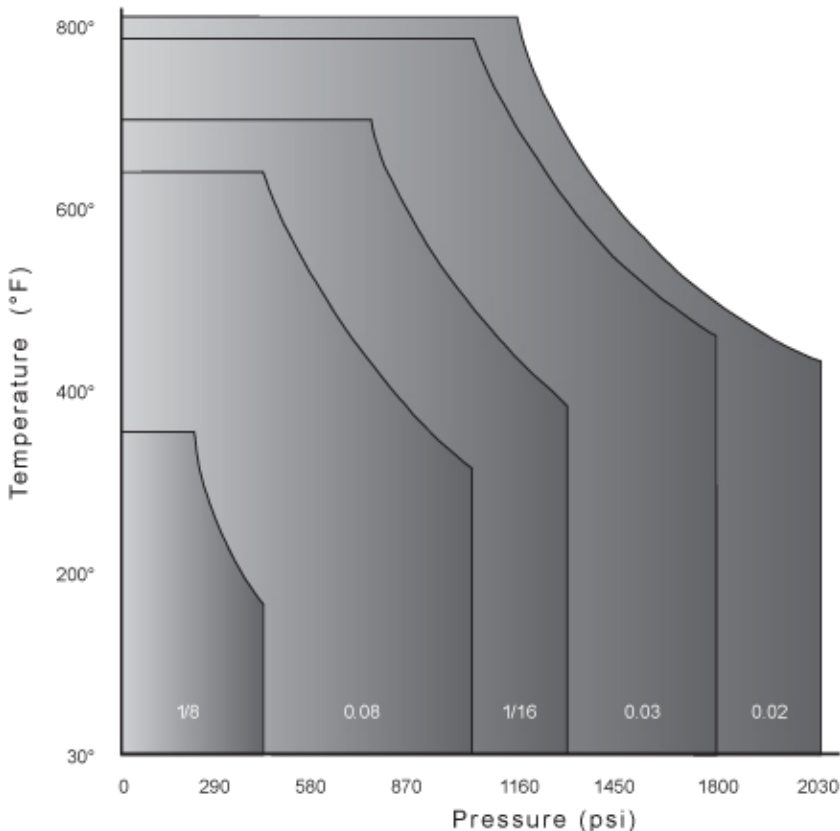
DESIGN INFORMATION

Gasket Constants	m	3.7
	y	3335 psi (23.00 MPa)
PVRC Constants (1/16" thick)	Gb	N/A
	a	N/A
	Gs	N/A
Recommended Surface Finish	125-250 μ in (3.2 - 6.3 μ m)	
Dielectric Strength	N/A	
ASTM Callout	712120M6†	† some digits may be chosen differently

PRESSURE CONTAINMENT AND TEMPERATURE

SF 5000 Thickness (in.)	0.020	0.030	1/16	0.080	1/8
Max. Temperature (°F)	824	806	752	662	392
Max. Pressure (psi)	2030	1800	1305	1015	435

NOTE: Above pressure/temperature cannot be used simultaneously.



Major Manufacturing Plants

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