

BLUE-GARD® Style 3000

MATERIAL PROPERTIES*:

Color:	Blue
Composition:	Aramid fibers with a nitrile binder
Fluid Services (see chemical resistance guide):	Water, aliphatic hydrocarbons, oils and gasoline
Temperature¹, °F (°C)	
Minimum:	-100 (-73)
Continuous Max:	+400 (+205)
Maximum:	+700 (+371)
Pressure¹, psig (bar)	
Maximum:	1000 (70)
Minimum:	Full Vacuum
Ideal Operating Limit:	750 (52)
P x T (max.)¹, psig x °F (bar x °C):	
1/32 and 1/16":	350,000 (12,000)
1/8":	250,000 (8,600)
Meets Specifications:	ABS (American Bureau of Shipping) and BS 7531 Grade Y

TYPICAL PHYSICAL PROPERTIES*:

ASTM F36	Compressibility , average, %:	8	
ASTM F36	Recovery , %:	50	
ASTM F38	Creep Relaxation , %:	21	
ASTM F152	Tensile , Across Grain, psi (N/mm ²):	2150 (15)	
ASTM F1315	Density , lbs./ft. ³ (grams/cm ³):	100 (1.60)	
ASTM F433	Thermal Conductivity (K) , W/m ² K (Btu.in./hr.ft. ² .°F):	0.29-0.38 (2.00-2.65)	
ASTM D149	Dielectric Properties , range, volts/mil.		
	Sample conditioning	<u>1/16"</u>	<u>1/8"</u>
	3 hours at 250°F	396 ⁽²⁾ -832	257 ⁽²⁾ -363
	96 hours at 100% Relative Humidity:	271	142
ASTM F586	Design Factors	<u>1/16" & Under</u>	<u>1/8"</u>
	"m" factor:	4.2	5.2
	"y" factor, psi (N/mm ²):	3050 (21.0)	4400 (30.3)
ROTT	Gasket Constants		
	1/16" thick	Gb = 2307 psi	a = 0.201 Gs = 0.41 psi
	1/8" thick	Gb = 2359 psi	a = 0.216 Gs = 2.87 psi

SEALING CHARACTERISTICS*

	ASTM F37B – Fuel A	ASTM F37B - Nitrogen	DIN 3535 – Nitrogen
Gasket Load , psi (N/mm ²):	500 (3.5)	3000 (20.7)	4640 (32)
Internal Pressure , psig (bar):	9.8 (0.7)	30 (2)	580 (40)
Leakage	0.2 ml/hr.	0.6 ml/hr.	0.05 cc/min

Notes:

* This is a general guide and should not be the sole means of selecting or rejecting this material. ASTM test results in accordance with ASTM F-104; properties

¹ Based on ANSI RF flanges at our preferred torque. When approaching maximum pressure, continuous operating temperature, minimum temperature or 50% of maximum P x T, consult Garlock Applications Engineering. Minimum temperature rating is conservative.

² Indicates electric current arced around and not through the gasket. Dielectric strength is higher than indicated.

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