



## Garlock BLUE GYLON® 3504

### MATERIAL PROPERTIES\*

<b>Color:</b>	Blue
<b>Composition:</b>	PTFE with Aluminosilicate microspheres
<b>Fluid Services<sup>1</sup>:</b>	Moderate concentrations of acids, some caustics, hydrocarbons, solvents, hydrogen peroxide, refrigerants and cryogenics
<b>Temperature<sup>2</sup>, °F (°C)</b>	
Minimum:	-450 (-268)
Continuous Max:	+500 (+260)
<b>Pressure<sup>2</sup>, Maximum, psig (bar):</b>	800 (55)
<b>P x T (max.)<sup>2</sup>, psig x °F (bar x °C)</b>	
1/32 and 1/16":	350,000 (12,000)
1/8":	250,000 (8,600)
<b>Flammability:</b>	Will Not Burn
<b>Bacterial Growth:</b>	Will Not Support
<b>Meets Specification:</b>	ABS (American Bureau of Shipping), FDA (Food and Drug Administration) and USP (US Pharmacopeia)

### TYPICAL PHYSICAL PROPERTIES\*

<b>ASTM F36</b>	<b>Compressibility, %:</b>	25-45
<b>ASTM F36</b>	<b>Recovery, %:</b>	30
<b>ASTM F38</b>	<b>Creep Relaxation, %:</b>	40.0
<b>ASTM F152</b>	<b>Tensile, Across Grain, psi (N/mm<sup>2</sup>):</b>	2000 (13.8)
<b>ASTM D792</b>	<b>Specific Gravity:</b>	1.70
<b>ASTM D1708</b>	<b>Modulus @ 100% Elongation, psi (N/mm<sup>2</sup>):</b>	1500 (10.3)
<b>ASTM F433</b>	<b>Thermal Conductivity (K), W/m<sup>2</sup>K (Btu·in./hr·ft.<sup>2</sup>·°F):</b>	0.14-0.24 (1.00-1.65)
<b>ASTM D149</b>	<b>Dielectric Properties, range, volts/mil.</b>	
	Sample conditioning	1/16" 1/8"
	3 hours at 250°F:	318 -
	96 hours at 100% Relative Humidity	245 -
<b>ASTM F586</b>	<b>Design Factors</b>	1/16" & Under 1/8"
	"m" factor:	3.0 2.5
	"y" factor, psi (N/mm <sup>2</sup> ):	1650 (11.4) 3000 (20.7)
<b>ROTT</b>	<b>Gasket Constants, 1/16":</b>	Gb=183 a=0.357 Gs=4.01x10 <sup>-3</sup>
	1/8":	Gb=1008 a=0.221 Gs=2.23
<b>ASTM F104</b>	<b>Line Call Out:</b>	F456999A9B7E99K3M6 <sup>(3)</sup>

### SEALING CHARACTERISTICS\*

	<b>ASTM F37B Fuel A</b>	<b>DIN 3535- 4 Gas Permeability</b>
<b>Gasket Load, psi (N/mm<sup>2</sup>):</b>	1000 (7)	4640 (32)
<b>Internal Pressure, psig (bar):</b>	9.8 (0.7)	580 (40)
<b>Leakage</b>	<b>0.12 ml/hr.</b>	<b>&lt;0.015 cc/min</b>

#### 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 based on 1/32" (0.8mm) sheet thickness unless otherwise mentioned.

\* Values do not constitute specification Limits

<sup>1</sup> See Garlock chemical resistance guide.

<sup>2</sup> 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.

<sup>3</sup> Increase in IRM Oil #903 (fourth numeral 9 is thickness, fifth numeral 9 is weight): Thickness = 1.0% max, Weight = 2.0% max. Sixth numeral 9: % Increase in Water: Weight = 1.0% max. A9: Leakage in Fuel A (Isooctane), Pressure = 9.8psig (0.7bar), Gasket Load = 1,000psi (7.0N/mm<sup>2</sup>): Typical = 0.12ml/hr, Max = 1.0ml/hr. E99: % Increase in ASTM Fuel B: Weight: 2.0% max., Thickness: 1.0% max.