

Style 4000

Leading the way in WRAS approved sealing solutions

MATERIAL PROPERTIES

Color:	Pale Yellow
Composition:	Aramid fibres with a nitrile binder
Fluid Services¹:	Water, oils and gasoline, solvents, steam & gases
Temperature², °C (°F)	
Minimum:	-73°C (-100°F)
Continuous Max:	230°C (445°F)
Pressure²	
Maximum, bar (psig):	100 (1428)
PxT (max.)², bar x °C (psig x °F)	
0.8mm and 1.5mm:	12,500 (375,000)
3mm	8900 (267,000)
BS7531 Grade X	
Meets Specifications:	Water regulations Advisory Scheme - Approved Material



PHYSICAL PROPERTIES

ASTM TEST METHOD	TYPICAL PHYSICAL PROPERTIES	TYPICAL RESULTS	
ASTM F36:	Compressibility , %:	6	
ASTM F36	Recovery , %:	>50	
ASTM F38	Creep Relaxation , %:	20	
ASTM F152	Tensile , Across Grain, psi (N/mm ²):	2175 (15)	
ASTM F1315	Density , lbs./ft ³ (grams/cm ³):	112 (1.8)	
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	1.5mm	3mm
	3 hours at 250°F	130	140
	96 hours at 100% Relative Humidity	24	24
ASTM F586	Design Factors	1.5mm	3mm
	“m” factor:	2.75	3.5
	“y” factor, psi (N/mm ²)	3625 (25.0)	4350 (30.0)
ASTM F104	Line Call Out:	F712102A9B4E23K5L101M9	

GARLOCK STYLE 4000

SEALING CHARACTERISTICS*

	ASTM F37B Fuel A	ASTM F37B Nitrogen	BS7531 Gas Leakage
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	-	0.5 ml/hr.	0.75 ml/min.

IMMERSION PROPERTIES* - ASTM F146 FLUID RESISTANCE AFTER FIVE HOURS

	ASTM Oil 901 300°F (150°C)	ASTM Oil 903 300°F (150°C)	ASTM Fuel A 70 - 85°F (20 - 30°C)	ASTM Fuel B 70 - 80°F (20 - 30°C)
Thickness increase, (%)	<10	<10	<5	<10
Weight increase, (%)	<7.5	-	<7.5	<10
Tensile Loss, (%)	-	<30	-	-

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 (1.50mm) sheet thickness unless otherwise mentioned.

* Values do not constitute specification Limits

¹ See Garlock chemical resistance guide

² Based on ANSI RF flanges at our preferred torque. When approaching maximum pressure, continuous operating temperature, minimum temperature or 50% of maximum P×T, consult Garlock Applications Engineering. Minimum temperature rating is conservative.



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GARLOCK

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