Garlock
SEALING TECHNOLOGIES®
an EnPro Industries company



Garlock 5507

MATERIAL PROPERTIES*

Color:	Sand
Composition:	Inorganic fibers with an EPDM binder
Fluid Services[1]:	Saturated steam[3], water, mild alkalies and mild chemicals
Temperature[2], °F (°C)	
Minimum:	-100 (-73)
Continuous Max:	+550 (+288)
Maximum:	+800 (+427)
Pressure[2], Maximum, psig (bar):	1200 (83)
P x T (max.)[2], psig x °F (bar x °C)	
1/32 and 1/16":	400,000 (14,000)
1/8":	275,000 (9,600)

PHYSICAL PROPERTIES*

ASTM F36	**Compressibility**, range, %:	7-17	
ASTM F36	**Recovery**, %:	50	
ASTM F38	**Creep Relaxation**, %:	15	
ASTM F152	**Tensile**, Across Grain, psi (N/mm^2):	1500 (10)	
ASTM F1315	**Density**, lbs./ft.^{3} (grams/cm^3):	110 (1.76)	
ASTM F433	**Thermal Conductivity (K)**, W/m°K (Btu.·in./hr.·ft.^{2}·°F):	0.61 (4.27)	
ASTM D149	**Dielectric Properties**, range, volts/mil.		
	Sample conditioning	1/16"	1/8"
	3 hours at 250°F:	396[4]	-
	96 hours at 100% Relative Humidity:	-	-
ASTM F586	**Design Factors**	1/16"	1/8"
	"m" factor:	3.5	5.5
	"y" factor, psi (N/mm^2):	2400 (16.5)	3900 (26.9)
ASTM F104	**Line Call Out**:	F712500A9B2E36K9L504M5[5]	

SEALING CHARACTERISTICS*

	ASTM F37B Fuel A	ASTM F37B Nitrogen	DIN 3535- 4 Gas Permeability
Gasket Load, psi (N/mm2):	500 (3.5)	3000 (20.7)	4640 (32)
Internal Pressure, psig (bar):	9.8 (0.7)	30 (2)	580 (40)
Leakage	**0.1 ml/hr.**	**0.5 ml/hr.**	**0.04 cc/min**

IMMERSION PROPERTIES* - ASTM F146 Fluid Resistance after Five Hours

	ASTM #1 Oil 300°F (150°C)	ASTM IRM #903 300°F (150°C)	ASTM Fuel A 70-85°F (20-30°C)	ASTM Fuel B 70-85°F (20-30°C)
Thickness Increase, (%)	25-40	60-90	10-30	15-35
Weight Increase, (%)	-	-	-	-
Tensile Loss, (%)	-	-	-	-

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

[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 PxT, consult Garlock Applications Engineering. Minimum temperature rating is conservative.

[3] Minimum recommended assembly stress = 4,800psi. Preferred assembly stress = 6,000-10,000psi. Gasket thickness of 1/16" strongly preferred. Retorque the bolts/studs prior to pressurizing the assembly. For saturated steam above 150psig or superheated steam, consult Garlock Engineering.

[4] Indicates current arced around and not through gasket. Dielectric higher than indicated.

[5] A9: Leakage in Fuel A (Isooctane), Gasket Load = 500psi (3.5N/mm2), Pressure = 9.8psig (0.7bar): Typical = 0.1ml/hr, Max = 1.0ml/hr. A9: Leakage in Nitrogen, Gasket Load = 3,000psi (20.7N/mm2), Pressure = 30psig (2bar): Typical = 0.5ml/hr, Max = 1.5ml/hr. K9: Thermal Conductivity = 0.61W/m°K (4.27btu·in/h-ft2°F).