

BLUE-GARD® Compressed Gasketing

Typical Physical Properties*

		3000	3200 [†] / 3400 ⁴	3300 ⁴	3700 ⁴	2900/ 2950
Color		Blue	Off-white/ Grey-black	Black	Light grey	Black/ Green
Binder		Nitrile (NBR)	SBR	Neoprene (CR)	EPDM	Nitrile (NBR)
Temperature¹	Maximum	+700°F (+370°C)	+700°F (+370°C)	+700°F (+370°C)	700°F (+370°C)	+700°F (+370°C)
	Minimum	-100°F (-75°C)	-100°F (-75°C)	-100°F (-75°C)	-100°F (-75°C)	-40°F (-40°C)
	Continuous max.	+400°F (+205°C)	+400°F (+205°C)	+400°F (+205°C)	+400°F (+205°C)	+400°F (+205°C)
Pressure, max.¹	psig (bar)	1,000 (70)	1,200 (83)	1,200 (83)	1,200 (83)	1,000 (70)
P x T, max.¹ (psig x °F) (bar x °C)	1/32", 1/16" (0.8mm, 1.6 mm)	350,000 (12,000)	350,000 (12,000)	350,000 (12,000)	350,000 (12,000)	350,000 (12,000)
	1/8" (3.2 mm)	250,000 (8,600)	250,000 (8,600)	250,000 (8,600)	250,000 (8,600)	250,000 (8,600)
	Sealability (ASTM F37B)²					
	ASTM Fuel A ml/hr	0.2	0.1	0.2	0.1	0.25
Nitrogen ml/hr	0.6	0.4	1.0	0.7	1.00	
Gas Permeability (DIN 3535 Part 4) ³ cc/min.		0.05	0.03	0.08	0.04	—
Creep Relaxation (ASTM F38) %		21	18	18	25	25
Compressibility Range (ASTM F36) %		7-17	7-17	7-17	7-17	7-17
Recovery (ASTM F36) %		50	50	50	40	50
Tensile Strength across grain (ASTM F152) psi (N/mm ²)		2,250 (15)	2,250 (15)	2,250 (15)	2,500 (17)	1,500 (10)
Fluid Resistance (ASTM F146 @ 5 hours)						
ASTM #1 Oil at +300°F (+150°C)						
Thickness increase %		0-5	0-10	0-5	20-35	0-5
Weight increase %		< 8	< 20	< 15	—	0-10
ASTM IRM #903 Oil at +300°F (+150°C)						
Thickness increase %		0-15	15-30	15-30	60-100	0-15
Tensile loss %		< 35	< 70	< 50	—	0-35
ASTM Fuel A at +70-85°F (+20-30°C)						
Thickness increase %		0-5	0-15	0-10	10-40	0-5
Weight increase %		< 8	< 25	< 20	—	0-10
ASTM Fuel B +70-85°F (+20-30°C)						
Thickness increase %		0-10	5-20	5-20	20-50	0-10
Weight increase %		< 15	< 30	< 20	—	0-20
Density 1/16" (1.6 mm) thick lbs/ft ³ (g/cm ³)		100 (1.60)	100 (1.60)	100 (1.60)	100 (1.60)	105 (1.68)

Notes:

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 Engineering.

² ASTM F37B Sealability, milliliters/hour (1/32" thick)

ASTM Fuel A (isooctane):

Gasket load = 500 psi (3.5 N/mm²),
Internal pressure = 9.8 psig (0.7 bar)

Nitrogen:

Gasket load = 3,000 psi (20.7 N/mm²),
Internal pressure = 30 psig (2 bar)

³ DIN 3535 Part 4 Gas Permeability, cc/min. (1/16" thick)

Nitrogen:

Gasket load = 4,640 psi (32 N/mm²),
Internal pressure = 580 psig (40 bar)

⁴ Saturated steam service guidelines:

- For optimal performance, use thinner gaskets when possible.
- Minimum recommended assembly stress = 4,800 psi.
- Preferred assembly stress = 6,000 psi to 10,000 psi.
- Retorque the bolts/studs prior to pressurizing the assembly. Never retorque a pressurized assembly.
- If the service is superheated steam, contact Applications Engineering.

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.

* **Values do not constitute specification limits**

[†] Meets Mil-G-24696B

All styles are furnished with an anti-stick parting agent as standard.