

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
Temperature ¹ , °F (°C)	
Minimum:	-100 (-73)
Continuous Max:	+400 (+205)
Maximum:	+700 (+371)
Pressure ¹ , Maximum, psig (bar):	1000 (70)
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)

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.

**ASME B16.21* Non-metallic Gasket Dimensions for
ASME B16.5 & B16.47 - 150# Flanges**

Pipe Size	Gasket I.D.	Ring	Full Face			
		Gasket O.D.	Gasket O.D.	Bolt Circle	Bolt Hole Qty.	Bolt Hole Dia.
0.5	0.84	1.88	3.50	2.38	4	0.63
0.75	1.06	2.25	3.88	2.75	4	0.63
1	1.31	2.62	4.25	3.13	4	0.63
1.25	1.66	3.00	4.63	3.50	4	0.63
1.5	1.91	3.38	5.00	3.88	4	0.63
2	2.38	4.12	6.00	4.75	4	0.75
2.5	2.88	4.88	7.00	5.50	4	0.75
3	3.50	5.38	7.50	6.00	4	0.75
3.5	4.00	6.38	8.50	7.00	8	0.75
4	4.50	6.88	9.00	7.50	8	0.75
5	5.56	7.75	10.00	8.50	8	0.88
6	6.62	8.75	11.00	9.50	8	0.88
8	8.62	11.00	13.50	11.75	8	0.88
10	10.75	13.38	16.00	14.25	12	1.00
12	12.75	16.13	19.00	17.00	12	1.00
14	14.00	17.75	21.00	18.75	12	1.13
16	16.00	20.25	23.50	21.25	16	1.13
18	18.00	21.62	25.00	22.75	16	1.25
20	20.00	23.88	27.50	25.00	20	1.25
24	24.00	28.25	32.00	29.50	20	1.38

Series A		Ring	Full Face*			
Pipe Size	Gasket I.D.	Gasket O.D.	Gasket O.D.	Bolt Circle	Bolt Hole Qty.	Bolt Hole Dia.
26	26.00	30.50	34.25	31.75	24	1.38
28	28.00	32.75	36.50	34.00	28	1.38
30	30.00	34.75	38.75	36.00	28	1.38
32	32.00	37.00	41.75	38.50	28	1.63
34	34.00	39.00	43.75	40.50	32	1.63
36	36.00	41.25	46.00	42.75	32	1.63
38	38.00	43.75	48.75	45.25	32	1.63
40	40.00	45.75	50.75	47.25	36	1.63
42	42.00	48.00	53.00	49.50	36	1.63
44	44.00	50.25	55.25	51.75	40	1.63
46	46.00	52.25	57.25	53.75	40	1.63
48	48.00	54.50	59.50	56.00	44	1.63
50	50.00	56.50	61.75	58.25	44	1.88
52	52.00	58.75	64.00	60.50	44	1.88
54	54.00	61.00	66.25	62.75	44	1.88
56	56.00	63.25	68.75	65.00	48	1.88
58	58.00	65.50	71.00	67.25	48	1.88
60	60.00	67.50	73.00	69.25	52	1.88

* ASME B16.21 does not provide full face dimensions for ASME B16.47 - 150# flanges.

Series B		Ring	Full Face*			
Pipe Size	Gasket I.D.	Gasket O.D.	Gasket O.D.	Bolt Circle	Bolt Hole Qty.	Bolt Hole Dia.
26	26.00	28.56	30.94	29.31	36	0.88
28	28.00	30.56	32.94	31.31	40	0.88
30	30.00	32.56	34.94	33.31	44	0.88
32	32.00	34.69	37.06	35.44	48	0.88
34	34.00	36.81	39.56	37.69	40	1.00
36	36.00	38.88	41.62	39.75	44	1.00
38	38.00	41.12	44.25	42.12	40	1.12
40	40.00	43.12	46.25	44.12	44	1.12
42	42.00	45.12	48.25	46.12	48	1.12
44	44.00	47.12	50.25	48.12	52	1.12
46	46.00	49.44	52.81	50.56	40	1.25
48	48.00	51.44	54.81	52.56	44	1.25
50	50.00	53.44	56.81	54.56	48	1.25
52	52.00	55.44	58.81	56.56	52	1.25
54	54.00	57.62	61	58.75	56	1.25
56	56.00	59.62	63	60.75	60	1.25
58	58.00	62.19	65.94	63.44	48	1.38
60	60.00	64.19	67.94	65.44	52	1.38

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