8900 Aramid-Graphite/NBR Rubber Binder

COMPRESSED SHEET GASKET MATERIAL § ASTM F104: F712120-A9B2E21L101M6

application:

DURLON® 8900 is a premium grade compressed non-asbestos sheet gasket material for service conditions to 925°F (496°C) and continuous operating temperatures of -100ºF to 752°F (-73ºC to 400°C), or 2000 psi (13.8 MPa). It is suitable for saturated and superheated steam, oil, dilute acids and alkalis, hydrocarbons, solvents and refrigerants.

composition:

DURLON® 8900 was specially developed to withstand high temperature and pressure application with good chemical resistance. It contains high strength fibers and graphite fillers bonded with high performance nitrile (NBR) synthetic rubber. Rubber level was optimized to obtain a flexible sheet with good cutting properties without compromising on physical properties at high temperature.

fire testing:

DURLON® 8900 has achieved the requirements of the Fire Test Certification ANSI/API 607, 6th Edition with zero leakage.

typical properties:

Color:	Black, branded
Fiber:	Aramid/Inorganic
Binder:	Nitrile (NBR)
Fluid Services:	Saturated and Superheated Steam, Oil, Dilute Acids & Alkalis, Hydrocarbons, Solvents, Refrigerants
Density:	1.6 g/cm^3 (100 lbs./ft^3)
Tensile Strength, ASTM F152:	2,000 psi (13.8 MPa)
Compressibility, ASTM F36:	7 to 17%
Recovery ASTM F36:	50%
Temperature Range: Continuous, max:	 -100 to 925°F (-73 to 496°C) 752°F (400°C)
Pressure, max: (at ambient temperature)	2,000 psig (138 bar)
Fluid Resistance - ASTM F146 IRM 903 oil, 5 h/300°F (149°C) Thickness Increase: Weight Increase: ASTM Fuel B 5 h/70°F (21°C) Thickness Increase: Weight Increase:	 3% Maximum 15% Maximum 4% Maximum 12% Maximum
Stress Relaxation, DIN 52913 @ 7252 psi (50 MPa) 16 h @ 347ºF (175ºC) 16 h @ 572ºF (300ºC)	 6500 psi (44.8 MPa) Minimum 6000 psi (41.4 MPa) Minimum
Volume Resistivity, ASTM D257:	4.01 x 10^0 ohm-cm
Dielectric Breakdown, ASTM D149:	N/A
Nitrogen Permeability ASTM F2378:	0.02 cc/min
Creep Relaxation ASTM F38:	15% Maximum
Flexibility, ASTM F147:	12x
ASTM F104 Line Call-Out:	F712120-A9B2E21L101M6

Note: ASTM properties based on 1/16" sheet thickness except ASTM F38, which is based on 1/32" sheet thickness. This is a general guide only and should not be the sole means of accepting or rejecting this material. The data listed here falls within the normal range of product properties but should not be used to establish specification limits nor used alone as the basis of design.

m&y and proposed astm gasket constants:

THICKNESS	1/16"	1/8"
M	4.8	7.3
Y psi (MPa)	4851 (33.4)	3730 (25.7)
Gasket Constants		
Gb psi (MPa)	915 (6.3)	567 (3.9)
a	0.428	0.556
Gs psi (MPa)	0.02 (0.0001)	0.26 (0.002)
*Gasket Constants based on proposed ASTM Draft 10.1		

available sheet sizes:

Nominal Thickness	Sheet Sizes inches	Sheet Sizes mm	Order Code	Sheets Per Roll	Approx. Weight/Sheet lbs (kg)
1/64" 0.5mm	60 x 63	1524 x 1600	GR05-060-063	20	4 (1.81)
	60 x 126	1524 x 3200	GR05-060-126	10	8 (3.63)
1/32" 0.8mm	60 x 63	1524 x 1600	GR08-060-063	20	7 (3.18)
	40 x 126	1016 x 3200	GR08-040-126	10	9 (4.08)
	60 x 126	1524 x 3200	GR08-060-126	10	14 (6.35)
	120 x 126	3048 x 3200	GR08-120-126	5	28 (12.7)
1.0mm	60 x 63	1524 x 1600	GR10-060-063	20	9 (4.08)
	40 x 126	1016 x 3200	GR10-040-126	10	12 (5.44)
	60 x 126	1524 x 3200	GR10-060-126	10	19 (8.62)
	120 x 126	3048 x 3200	GR10-120-126	5	37 (16.78)
1/16" 1.5mm	60 x 63	1524 x 1600	GR15-060-063	10	15 (6.80)
	40 x 126	1016 x 3200	GR15-040-126	5	19 (8.62)
	60 x 126	1524 x 3200	GR15-060-126	5	29 (13.15)
	120 x 126	3048 x 3200	GR15-120-126	2	58 (26.31)
2.0mm	60 x 63	1524 x 1600	GR20-060-063	10	18 (8.16)
	40 x 126	1016 x 3200	GR20-040-126	5	24 (10.89)
	60 x 126	1524 x 3200	GR20-060-126	5	38 (17.24)
	120 x 126	3048 x 3200	GR20-120-126	2	74 (33.57)
3/32" 2.5mm	60 x 63	1524 x 1600	GR25-060-063	8	23 (10.43)
	40 x 126	1016 x 3200	GR25-040-126	4	31 (14.06)
	60 x 126	1524 x 3200	GR25-060-126	4	46 (20.87)
	120 x 126	3048 x 3200	GR25-120-126	1	92 (41.73)
1/8" 3.0mm	60 x 63	1524 x 1600	GR30-060-063	8	28 (12.70)
	40 x 126	1016 x 3200	GR30-040-126	4	37 (16.78)
	60 x 126	1524 x 3200	GR30-060-126	4	55 (24.95)
	120 x 126	3048 x 3200	GR30-120-126	1	110 (49.90)

Standard Testing:

Tests are standard ASTM procedures. Specific information on any test results and the procedure used is available upon request.

Testing vs Operating Conditions:

All test methods provide a standardized procedure to measure specific effects under controlled conditions. The results of any test are not intended to have any direct correlation with service conditions.

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