SPECIFICATION
SHEET
September 2006

DURLON® 8500

Aramid/Inorganic Fiber with NBR Rubber Binder
COMPRESSED SHEET GASKET MATERIAL
ASTM F104: F712120-A9B3E12K5L151M6

APPLICATION:

Our workhorse material, DURLON® 8500 is excellent in steam, natural gas, soybean processing and with new generation refrigerants. A high quality general service gasket material for use in a wide range of services in pulp and paper, food, beverage, pharmaceutical, chemical, refinery, gas pipeline and general industry. DURLON® 8500 exhibits good compressibility and recovery, excellent sealability, flexibility and cutting characteristics.

COMPOSITION:

DURLON® 8500 contains high-strength aramid and inorganic fibers bonded with high-grade Nitrile (NBR) rubber.

FIRE TESTING:

DURLON® 8500 has successfully passed a modified version of the API 607 fire test. The duration of the direct flame portion of the test is 30 minutes and the flange temperature must reach 1200°F in the first 15 minutes. The internal pressure is held at a constant 30 psig. After the flame is shut off, the fixture is immediately water quenched with an overhead water blast. Leakage must not exceed 100 ml/min after a 6 minute cool down to successfully pass the test. Subsequent leakage testing is also performed.

ANTI-STICK PROPERTIES:

Much effort has gone into improving the anti-stick release agents of all compressed DURLON® products. All DURLON® compressed gasket materials have passed the MIL-G-24696B Navy Adhesion Test (366°F/48 hrs).

TYPICAL PROPERTIES:

Color:	Green, branded
Fiber:	Aramid/Inorganic
Binder:	Nitrile (NBR)
Fluid Services:	Saturated Steam, Oils, Fuels, Dilute Acids & Alkalis, Solvents, Refrigerants
Density:	1.7 g/cm^3 (106 lbs./ft^3)
Tensile Strength, ASTM F152:	2,000 psi (13.8 MPa)
Compressibility, ASTM F36:	8 to 16%
Recovery ASTM F36:	50%
Temperature Range: Continuous, max:	 -100 to 700°F (-73 to 371°C) 548°F (287°C)
Pressure, max:	1500 psig (103 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:	 0 to 15% 15% 0 to 10% 10%
Sealability ASTM F37 (Fuel A): ASTM F37 (Nitrogen):	 0.01 mL/hr 0.4 mL/hr
Volume Resistivity, ASTM D257:	4.2 x 10^{13} ohm-cm
Dielectric Breakdown, ASTM D149:	11.7 kV/mm (297 V/mil)
DIN 3535 Gas Permeability:	0.03 cc/min
Creep Relaxation ASTM F38:	20%
Flexibility, ASTM F147:	10x

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.
*For applications above Class 300, consult your representative.

M&Y AND PROPOSED ASTM GASKET CONSTANTS:

THICKNESS	1/16"	1/8"
M	2.7	4.2
Y psi (MPa)	2359 (16.27)	2931 (20.21)
Gasket Constants		
Gb psi (MPa)	650 (4.5)	400 (208)
a	0.33	0.35
Gs psi (MPa)	200 (1.4)	20 (0.1)
*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 60 x 126	1524 x 1600 1254 x 3200	DG05-060-063 DG05-060-126	20 10	3 (1.4) 7 (3.2)
1/32" 0.8mm	60 x 63 60 x 126	1524 x 1600 1254 x 3200	DG08-060-063 DG08-060-126	20 10	7 (3.2) 14 (6.4)
1.0mm	60 x 63 60 x 126 120 x 126	1524 x 1600 1254 x 3200 3048 x 3200	DG10-060-063 DG10-060-126 DG10-120-126	20 10 5	9 (4.1) 19 (8.6) 37 (16.8)
1/16" 1.5mm	60 x 63 60 x 126 120 x 126	1524 x 1600 1254 x 3200 3048 x 3200	DG15-060-063 DG15-060-126 DG15-120-126	10 5 2	14 (6.4) 28 (12.7) 55 (25.0)
2.0mm	60 x 63 60 x 126 120 x 126	1524 x 1600 1254 x 3200 3048 x 3200	DG20-060-063 DG20-060-126 DG20-120-126	10 5 2	18 (8.2) 38 (17.2) 74 (33.6)
3/32" 2.5mm	60 x 63 60 x 126	1524 x 1600 1254 x 3200	DG25-060-063 DG25-060-126	8 4	22 (10.0) 44 (20.0)
1/8" 3.0mm	60 x 63 60 x 126 120 x 126	1524 x 1600 1254 x 3200 3048 x 3200	DG30-060-063 DG30-060-126 DG30-120-126	8 4 1	28 (12.7) 55 (25.0) 110 (50.0)
3/16" 5.0mm	60 x 63 60 x 126 120 x 126	1524 x 1600 1254 x 3200 3048 x 3200	DG50-060-063 DG50-060-126 DG50-120-126	4 2 1	42 (19.1) 83 (37.6) 165 (75.8)

Warning: Durlon gasket materials should never be recommended when both the temperature and the pressure are at the maximums listed. Properties and applications shown are typical. No application should be undertaken by anyone without independent study and evaluation for suitability. Never use more than one gasket in one flange joint, and never reuse a gasket. Improper use or gasket selection could cause property damage and/or serious personal injury. The data reported is a compilation of field testing, field service reports and/or in-house testing. While the utmost care has gone into publishing the information contained herein, we assume no responsibility for errors. The information and specifications contained in this website are subject to change without notice. This revision cancels and obsoletes all previous editions.

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