

# Durlon Cross-Reference & Typical Physical Properties Overview

## Typical Physical Properties

DURLON Style	8300	8400	8500	8600	8700	7900/7950
Color:	Black	Gold	Green	White	Blue	7900 - Off-white 7950 - Blue
Fluid Services:	Saturated Steam, Oils, Dilute Acids & Alkalis, Solvents Hydrocarbons	Steam, Oils, Fuels, Solvents, Caustics, Refrigerants, Dilute Acids & Alkalis	Saturated Steam, Oils, Dilute Acids & Alkalis, Solvents, Fuels, Refrigerants	Saturated Steam, Water, Dilute Acids & Alkalis, Inert Gases, Ammonia	Saturated Steam, Oils, Water, Dilute Acids & Alkalis, Refrigerants	Steam, Water, Inert Gases, Oils, Fuels, Dilute Acids & Alkalis
Fiber System:	Carbon	Phenolic	Aramid/Inorganic	Aramid/Inorganic	Aramid/Inorganic	Aramid
Binder:	NBR	NBR	NBR	SBR	CR	NBR
Density, g/cc (lbs/cu. ft)	1.6 (100)	1.7 (106)	1.7 (106)	1.7 (106)	1.7 (106)	1.7 (106)
Temperature, Range:	-100 to 800°F (-73 to 427°C)	-100 to 800°F (-73 to 427°C)	-100 to 700°F (-73 to 371°C)	-100 to 700°F (-73 to 371°C)	-100 to 700°F (-73 to 371°C)	-100 to 700°F (-73 to 371°C)
Continuous, max:	600°F (315°C)	554°F (290°C)	548°F (287°C)	548°F (287°C)	548°F (287°C)	400°F (204°C)
Pressure Max:	1500 psig (103 bar)	1500 psig (103 bar)	1500 psig (103 bar)	1500 psig (103 bar)	1500 psig (103 bar)	1000 psig (70 bar)
ASTM F36, Compressibility	8-16%	8-16%	8-16%	8-16%	8-16%	7-17%
ASTM F36, Recovery	50%	50%	50%	45%	45%	40%
ASTM F38, Creep Relaxation	18%	25%	20%	20%	20%	20%
ASTM F152, Tensile Strength across grain, psi (MPa)	1,800 (12.4)	1,800 (12.4)	2,000 (13.8)	1,800 (12.4)	1,500 (10.3)	1,600 (11.0)
Fluid Resistance, pH Range (room temp)	3 to 11	2 to 13	3 to 11	3 to 11	3 to 11	3 to 11
ASTM F146 IRM 903 Oil 5h/300F (149C)						
Thickness Increase	0 to 10%	0 to 15%	0 to 15%	15 to 30%	0 to 15%	0 to 15%
Weight Increase	10%	15%	15%	30%	15%	15%
ASTM Fuel B 5h/70F (21C)						
Thickness Increase	0 to 10%	0 to 10%	0 to 10%	5 to 20%	0 to 15%	0 to 10%
Weight Increase	12% Max	15% Max	10% Max	30% Max	15% Max	12% Max
Leachable Halides:	500 ppm max	1000 ppm max	1000 ppm max	-	-	-
Leachable Chlorides:	200 ppm max	400 ppm max	100 ppm max	-	-	-
Leakage: DIN 3535	0.05 cc/min	0.03 cc/min	0.03 cc/min	0.05 cc/min	0.05 cc/min	0.05 cc/min
Volume Resistivity, ASTM D257, 1/16"	5 x 10 <sup>9</sup> ohm-cm	3.1 x 10 <sup>13</sup> ohm-cm	4.2 x 10 <sup>13</sup> ohm-cm	4.2 x 10 <sup>13</sup> ohm-cm	4.2 x 10 <sup>13</sup> ohm-cm	-
Dielectric Breakdown, ASTM D149, 1/16"	0.04 kv/mm	14.6 kv/mm	11.7 kv/mm	11.7 kv/mm	11.7 kv/mm	-
Gasket Factors:						
Gb psi (Mpa)	1/16" 512 (3.5) 1/8" 1716 (11.8)	1/16" 2000 (13.8) 1/8" -	1/16" 650 (4.5) 1/8" 400 (2.8)	-	-	-
a	0.36 0.21	0.194 -	0.33 0.35	-	-	-
Gs psi (MPa)	0.13 (0.0) 0.7 (0.01)	340 (2.3) -	200 (1.4) 20 (0.14)	-	-	-
ASTM F147, Flexibility	10x	8x	10x	8x	8x	10x
ASTM F104 Line Call-Out	F712120-B3E22M5	F712120-B4E22M5	F712120-B3E12M6	F712440-B3E24M5	F712330-B5E45M5	F712120-B3E22M5

**NOTE:** ASTM and DIN 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.

PACKING • SEALS • GASKETS • COMPONENTS

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## Cross-Reference

In General GRI/DURLON Gasketing Can Be Used In The Same Conditions and Services As The Following:<sup>1</sup>

GRI/DURLON	Garlock	Thermoseal	Flexitallic
Durlon 7900/7950	2900, Blue-Gard 3000	Klinger sil C-4201, C-4324, C-4401	SF1600, AF 2100
Durlon 8300	HTC-9800, HTC-9850, G-9900, ST-706	Klinger sil C-4500	SF 5000
Durlon 8400	Blue-Gard 3700, IFG 5507	Klinger sil C-7400	-
Durlon 8500	Blue-Gard 3000, IFG 5500	Klinger sil C-4401, C-4430, & C-4433	AF 2100, SF 2400, SF 3300, SF 3500
Durlon 8600	Blue-Gard 3200, 3400	Klinger sil C-6400	SF 2420
Durlon 8700	Blue-Gard 3300	Klinger sil C-5400	SF 2440

<sup>1</sup>Refer to the manufacturer for P<sub>x</sub>T, chemical resistance and other compatibility information. Be sure application is within the service limits of each DURLON material.

**Warning:** These materials should never be recommended when both temperature and pressure are at the maximum 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. Data reported in this brochure 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. Specifications and information contained in this brochure are subject to change without notice. This edition cancels and obsoletes all previous editions.