

# 5000 Mineral/NBR Rubber Binder

COMPRESSED SHEET GASKET MATERIAL: ASTM F104: F712110-A9B4E12K5L051M5



## application:

DURLON® 5000 is a commercial grade compressed sheet gasket material for moderate service conditions. It is suitable for steam, oil, water, mild alkalis and acids, hydrocarbons and solvents.

## composition:

DURLON® 5000 contains high strength mineral fibers and fillers bonded with nitrile (NBR) synthetic rubber.

## 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:	Light Green, branded
Fiber:	Inorganic
Binder:	Nitrile (NBR)
Fluid Services:	Steam, Water, Oils, Fuels, Mild Acids & Alkalis, Solvents
Density:	1.7 g/cm <sup>3</sup> (106 lbs./ft <sup>3</sup> )
Tensile Strength, ASTM F152:	1,500 psi (10.3 MPa)
Compressibility, ASTM F36:	7 to 17%
Recovery ASTM F36:	40%
Temperature Range:	-100 to 550°F (-73 to 288°C)
Continuous, max:	450°F (232°C)
Pressure, max (ambient temperature):	1000 psig (69 bar)
Fluid Resistance - ASTM F146 IRM 903 oil, 5 h/300°F (149°C) Thickness Increase:	0 to 10%
Weight Increase:	10%
ASTM Fuel B 5 h/70°F (21°C) Thickness Increase:	0 to 10%
Weight Increase:	10%
Nitrogen Permeability, ASTM F2378	0.05 cc/min
Creep Relaxation, ASTM F38:	25%
Flexibility, ASTM F147:	10x
ASTM F104 Line Call-Out:	F712120-A9B4E12K5L051M5

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	1.5	2.5
Y psi (MPa)	1855 (12.8)	2619 (18.1)
Gasket Constants		
Gb psi (MPa)	474 (3.3)	902 (6.2)
a	0.256	0.253
Gs psi (MPa)	48 (0.3)	4 (0.03)
*Gasket Constants based on proposed ASTM Draft 10.1		

## available sheet sizes:

Nominal Thickness	Sheet Sizes		Order Code Durlon® 5000	Sheets Per Roll	Approx. Weight/Sheet lbs (kg)
	inches	mm			
1/64" 0.5mm	60 x 63	1524 x 1600	CS05-060-063	20	3 (1.4)
	60 x 126	1524 x 3200	CS05-060-126	10	7 (3.2)
1/32" 0.8mm	60 x 63	1524 x 1600	CS08-060-063	20	7 (3.2)
	60 x 126	1524 x 3200	CS08-060-126	10	14 (6.4)
1mm	60 x 63	1524 x 1600	CS10-060-063	20	9 (6.4)
	60 x 126	1524 x 3200	CS10-060-126	10	19 (12.7)
	120 x 126	3048 x 3200	CS10-120-126	5	37 (25.0)
1/16" 1.5mm	60 x 63	1524 x 1600	CS15-060-063	10	14 (6.4)
	60 x 126	1524 x 3200	CS15-060-126	5	28 (12.7)
	120 x 126	3048 x 3200	CS15-120-126	2	55 (25.0)
2.0mm	60 x 63	1524 x 1600	CS20-060-063	10	18 (8.2)
	60 x 126	1524 x 3200	CS20-060-126	5	38 (17.2)
	120 x 126	3048 x 3200	CS20-120-126	2	74 (33.6)
3/32" 2.5mm	60 x 63	1524 x 1600	CS25-060-063	8	22 (10.0)
	60 x 126	1524 x 3200	CS25-060-126	4	44 (20.0)
1/8" 3.0mm	60 x 63	1524 x 1600	CS30-060-063	8	28 (12.7)
	60 x 126	1524 x 3200	CS30-060-126	4	55 (25.0)
	120 x 126	3048 x 3200	CS30-120-126	1	110 (50.0)

## 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 methods of test 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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