

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 ³ (106 lbs./ft ³) |
| Tensile Strength, ASTM F152: | 1,500 psi (10.3 MPa) |
| Compressibility, ASTM F36: | 7 to 17% |
| Recovery ASTM F36: | 40% |
| Temperature Range: Continuous, max: | -100 to 550°F (-73 to 288°C) 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: Weight Increase: ASTM Fuel B 5 h/70°F (21°C) Thickness Increase: Weight Increase: | 0 to 10% 10% 0 to 10% 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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