9400 Carbon/PTFE

Carbon Filler with Pure PTFE Resins FILLED PTFE GASKET MATERIAL § ASTM F104: F452111-A9B5E11M6

application:

DURLON® 9400 gasket material is a high performance filled PTFE designed for use in piping and equipment in chemical, pharmaceutical, food and other general industrial applications where resistance to highly aggressive chemicals (including hydrofluoric acid) is required. Style 9400 conforms to FDA requirements.

It can also be used as gasketing for anhydrous hydrogen fluoride (AHF) in railroad tankcars and in plants as a material of construction where barium sulfate filled PTFE may not prove suitable.

Note: that as a class, PTFE gasket materials are not recommended in liquid oxygen services where there is THERMAL CYCLING due to thermal shock and the difference of the coefficient of expansion between PTFE and steel.

composition:

DURLON® 9400 is made of pure PTFE resins combined with carbon fillers homogeneously dispersed throughout the compound. DURLON® 9400 does not exhibit the cold flow problems associated with virgin PTFE yet has excellent sealability, flexibility, non-sticking and cutting characteristics. DURLON® 9400 also demonstrates good electrical conducting properties.

typical properties:

Color:	Black, branded
Filler:	Carbon
Temperature Range:	-350 to 550°F (-212 to 288°C)
Pressure, max:	1500 psig (103 bar)
Fluid Services:	Aqueous and anhydrous Hydrogen Fluoride, Steam, Oils, Caustics, Alcohols, Liquid & Gaseous Oxygen, Refrigerants
Density:	2.1 g/cm^3 (135 lbs./ft^3)
Tensile Strength, ASTM F152:	2,100 psi (14.5 MPa)
Compressibility, ASTM F36:	5 to 12%
Recovery ASTM F36:	40%
Sealability ASTM F37 (Fuel A): ASTM F37 (Nitrogen):	 0.01 mL/hr 0.02 mL/hr
Volume Resistivity, ASTM D991:	61ohm-cm (for electrically conductive Products)
Dielectric Breakdown, ASTM D149:	1 kV/mm (33 V/mil)
DIN 3535 Gas Permeability:	0.01 cc/min
Creep Relaxation ASTM F38:	30%

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	6.8	6.8
Y psi (MPa)	2765 (19.06)	3105
Gasket Constants		
Gb psi (MPa)	1701 (11.7)	1412 (9.7)
a	0.173	0.164
Gs psi (MPa)	99 (0.7)	248 (1.7)
*Gasket Constants based on proposed ASTM Draft 10.1		

available sheet sizes:

NOMINAL THICKNESS	SHEET SIZES inches	mm	ORDER CODE 9400	APPROX. WT/ SHEET lbs (kg)
1/32" 0.8mm	60 x 60	1524 x 1524	TC08-060-060	9 (4)
1/16" 1.5mm	60 x 60	1524 x 1524	TC15-060-060	17 (7.7)
1/8" 3.0mm	60 x 60	1524 x 1524	TC30-060-060	34 (15.4)

Note: 60" x 120" (1.5m x 3m) sheet sizes available on special order, other custom lengths available on request..

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.

Seal & Design
Able Division
5533 Steeles Avenue West Unit 11
Toronto, Ontario M9L 1S7
Ph: (416) 741-0750
Gasket@AbleSealAndDesign.com

Seal & Design
Corporate Headquarters
4015 Casilio Parkway
Clarence, NY 14031
Ph: (716) 759-2222
Info@SealAndDesign.com
www.SealAndDesign.com

Seal & Design
Higbee Division
6741 Thompson Rd N
Syracuse, NY 13221
Ph: (315) 432-8021
Sales@Higbee-Inc.com