

GRAFOIL[®] PTFE Filled Woven Glass

Made In USA

- GRAFOIL[®] Grade PTFE filled woven glass is multiple piles of woven fiberglass coated with PTFE.
- Surface identifiable, TG-323 (UCAR-323) material is branded with the GRAFOIL[®] grade and source guarantee.
- Electrical isolation of pipelines and equipment.
- For use with sulfuric acid, nitric acid and other strong oxidizing chemicals.
- Continuous operating temperature -73°C to 245°C
- Material designed to give up to 14 times the sealable rate.
- Extremely tolerant to process changes in temperature and pressure with 70% less creep.
- Excellent in thermal cycling



Product Family

PTFE Coated Woven Glass (Service to 245°C)

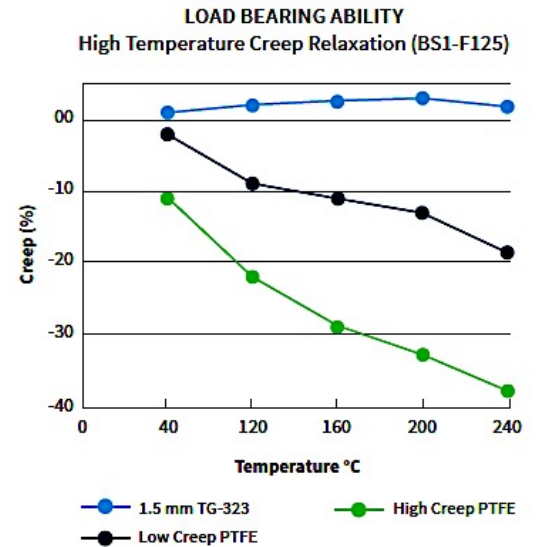


Product Overview

GRAFOIL® Grade TG-323 (UCAR-323) laminated gasket consists of multiple piles of woven fiberglass coated with PTFE. Surface identifiable, TG-323 material is branded with the GRAFOIL® grade and source guarantee.

Applications

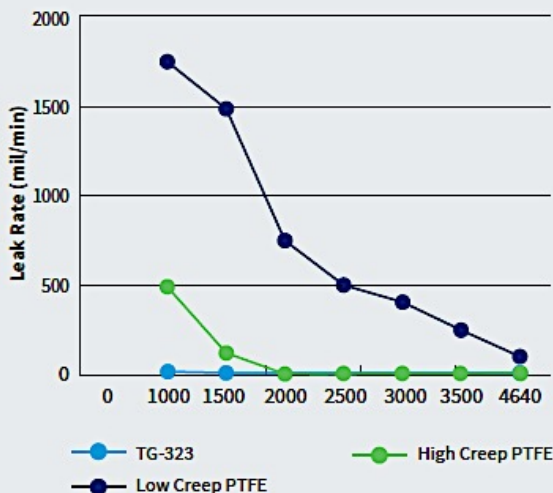
- Electrical isolation of pipelines and equipment, use with sulfuric acid, nitric acid and other strong oxidizing chemicals.



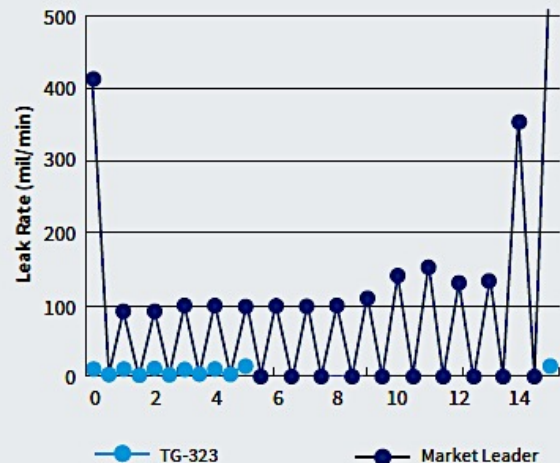
Advantages of TG-323 WW Material

- More than 5 times the tensile strength of market leader PTFE
- Design and material give up to 14 times the sealability rate
- Absorption rate of less than 0.1%
- Extremely tolerant to process changes (temperature & pressure)
- 70% less creep
- Maintains a higher bolt torque retention and a better seal in applications of thermal cycling

SEALABILITY (MODIFIED DIN3535)



THERMOCYCLING SEALABILITY TEST



Gasket size: OD3.75" (95.3 mm) x ID 1.91" (48.5 mm) x 1/16" (1.6 mm). Internal Pressure: 580 PSI (4MPa) Nitrogen

Typical Properties* GRAFOIL® Grade TG-323 (UCAR-323)

Characteristic	Typical Value
Thickness	1/32" (0.031") (0.79 mm) 1/16" (0.062") (1.57 mm) 1/8" (0.125") (3.18 mm)
Width	36" (914 mm) Tolerance +0.25/-0" (+6.35/-0 mm)
Length	48" (1219 mm) Tolerance +0.25/-0" (+6.35/-0 mm)
Compressibility at 5000 psi (35 MPa) load	3% Typical
Recovery after 5000 psi (35 MPa) load	70% Typical
Creep Relaxation Method: BSI-F125 at 6391 psi (44.1 MPa) loadup to 400°C	<3% Typical
Room Temperature Sealability at 9.8 psi (68 MPa) internal pressure, Fuel "A" (isooctane)	0.02 ml/hr Typical
High Temperature Sealability: Method: Mod DIN 3535 at 580 psi N2 at 32 MPa load	<0.1 ml/min Typical
Specific Gravity	2.3g/cm ³ Typical
Tensile Strength	12000 psi (82.7 MPa) Typical
Coefficient of Thermal Conductivity (k)	0.18 Typical
Dielectric Strength	250 V/mil Typical
Maximum Continuous Operating Temperature	245C Typical
Minimum Continuous Operating Temperature	-200C Typical
Flammability	Will not support combustion
Bacterial Growth	Will not support bacteria

Note: *Properties listed are typical and cannot be used as accept/reject specifications

Typical Design Properties

- "m" Factor: 3
- "y" Stress: 2200 psi (15.2 MPa)

Note: For non-perfect flanges, multiply calculated clamping force by two