

# TG-323 Reinforced PTFE Gasketing

## TECHNICAL DATA SHEET 225

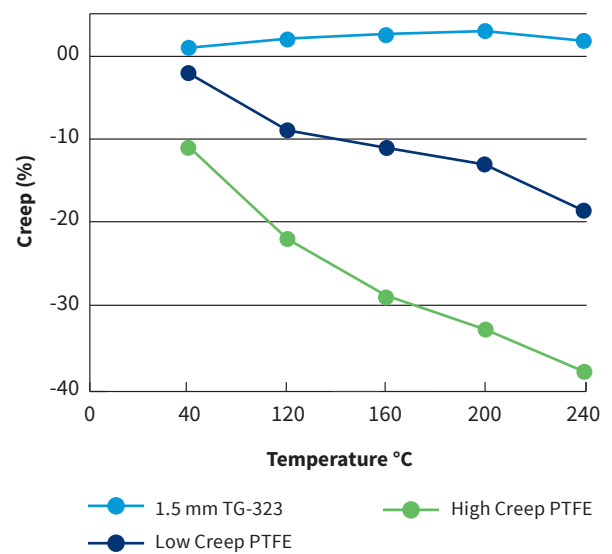
### Product Overview

GRAFOIL® Grade TG-323 laminated gasket material consists of multiple plies of woven fiberglass coated with PTFE.

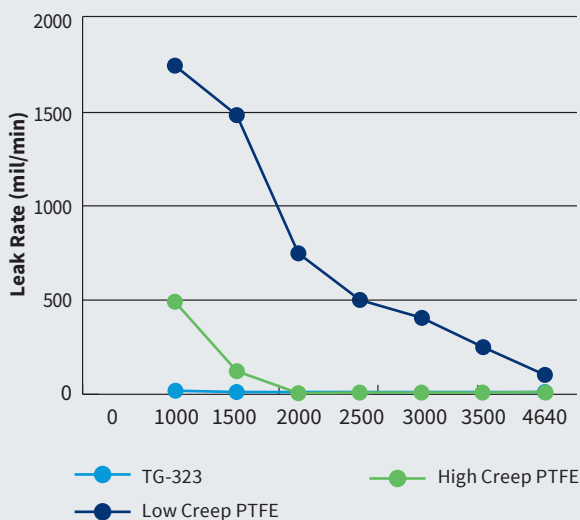
### Applications

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

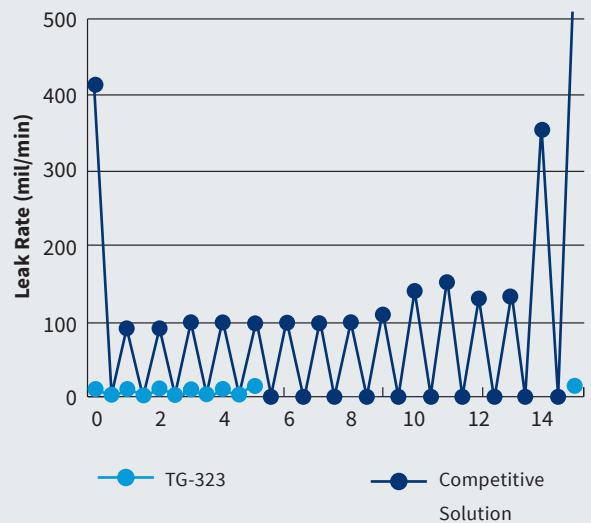
**LOAD BEARING ABILITY**  
High Temperature Creep Relaxation (BS1-F125)



**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

## Advantages of TG-323 Material

- More than 5 times the tensile strength of the 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

## Typical Properties\*

CHARACTERISTIC	TYPICAL VALUE
Thickness	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%
Recovery after 5000 psi (35 MPa) load	70%
Creep Relaxation Method: BSI-F125 at 6391 psi (44.1 MPa) loadup to 400°C	<3%
Room Temperature Sealability at 9.8 psi (68 MPa) internal pressure, Fuel "A" (isooctane)	0.02 ml/hr
High Temperature Sealability Method: Mod DIN 3535 at 580 psi N2 at 32 MPa load	<0.1 ml/min
Specific Gravity	2.3 g/cm <sup>3</sup>
Tensile Strength	12000 psi (82.7 MPa)
Coefficient of Thermal Conductivity (k)	0.18
Dielectric Strength	250 V/Mil
Maximum Continuous Working Temperature	245°C (475°F)
Minimum Working Temperature	-200°C (325°F)
Flammability	Will not support combustion
Bacterial Growth	Will not support bacteria

Notes: \* 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.

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