


# Reinforced PTFE Gasketing

Technical Data Sheet 225

## Standard Grades

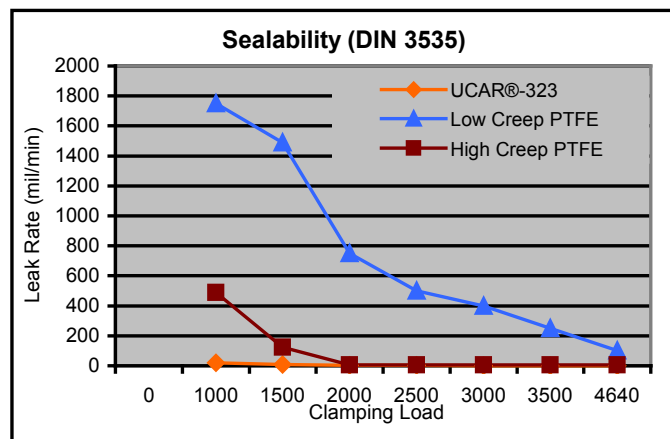
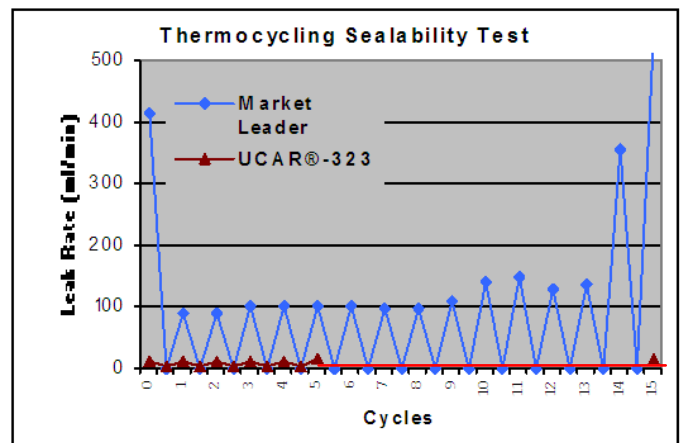
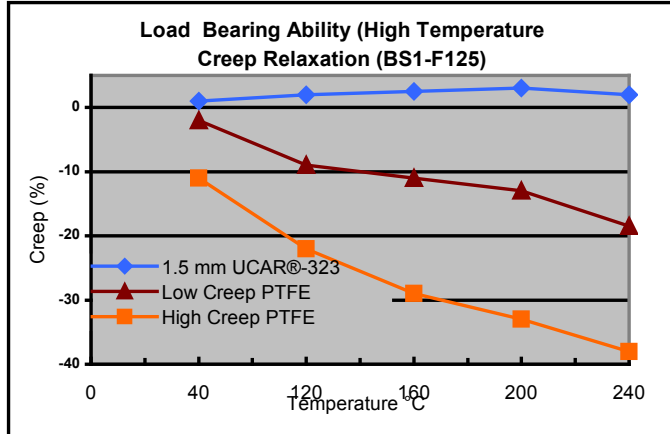
- UCAR®-323 

## Product Overview

GRAFOIL Grade UCAR-323 is a laminated gasket material consisting of multiple plies of woven fiberglass coated with PTFE. Applications include: electrical isolation of pipelines and equip, use with sulfuric acid, nitric acid and other strong oxidizing chemicals. Surface identifiable, UCAR-323 is branded with the GRAFOIL grade and source guarantee.

## Applications

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



## Advantages of UCAR-323WW

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

## Typical Properties\*

Characteristic	Value
Thickness	1/32" (0.031") (0.79 mm) Standard 1/16" (0.062") (1.57 mm) Standard 1/8" (0.125") (3.18 mm) Standard
Width	36" (914 mm) Standard Tolerance +0.25/-0" (+6.35/-0 mm)
Length	48" (1219 mm) Standard 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 N <sub>2</sub> at 32 MPa load	<0.1 ml/min Typical
Specific Gravity	2.3 g/cm <sup>3</sup> 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 Working Temperature	245°C (475°F) Typical
Minimum Working Temperature	-200°C (325°F) Typical
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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