

# REINFORCED PTFE GASKETING

## STANDARD GRADES

UCAR<sup>®</sup>-323



## GRAFOIL Grade UCAR<sup>®</sup>-323

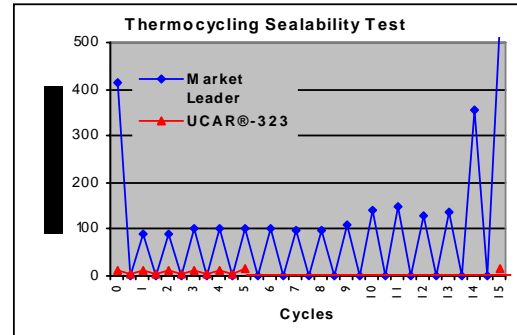
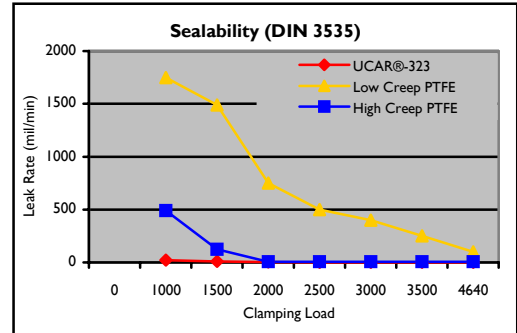
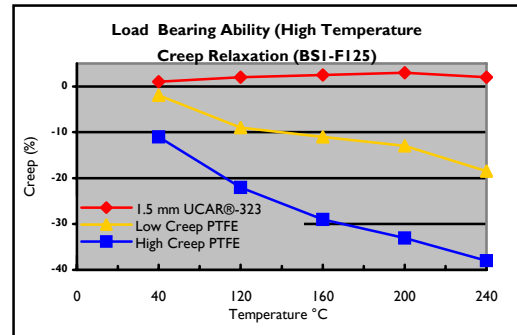
GRAFOIL Grade UCAR-323 is a laminated gasket material consisting of multiple plies of woven fiberglass coated with PTFE. Applications include: electrical isolation of pipelines and equip, use with sulfuric acid, nitric acid and other strong oxidizing chemicals. Surface identifiable, UCAR<sup>®</sup>-323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

### ADVANTAGES OF UCAR<sup>®</sup>-323

- 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

### APPLICATIONS

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



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

**Grade UCAR-323<sup>®</sup> Typical Properties<sup>1</sup>**

<b>CHARACTERISTIC</b>	<b>TYPICAL PROPERTY</b>
<b>Thickness</b>	1/32" (0.031") (0.79 mm) Standard 1/16" (0.062") (1.57 mm) Standard 1/8" (0.125") (3.18 mm) Standard
<b>Width</b>	36" (914 mm) Standard Tolerance +0.25/-0" (+6.35/-0 mm)
<b>Length</b>	48" (1219 mm) Standard Tolerance +0.25/-0" (+6.35/-0 mm)
<b>Compressibility</b> at 5000 psi (35 MPa) load	3% Typical
<b>Recovery</b> after 5000 psi (35 MPa) load	70% Typical
<b>Creep Relaxation</b> Method: BSI-FI 25 at 6391 psi (44.1 MPa) load up to 400°C	<3% Typical
<b>Room Temperature Sealability</b> at 9.8 psi (68 MPa) internal pressure, Fuel "A" (isooctane)	0.02 ml/hr Typical
<b>High Temperature Sealability</b> Method: Mod DIN 3535 at 580 psi N <sub>2</sub> at 32 MPa load	<0.1 ml/min Typical
<b>Specific Gravity</b>	2.3 g/cm <sup>3</sup> Typical
<b>Tensile Strength</b>	12000 psi (82.7 MPa) Typical
<b>Coefficient of Thermal Conductivity (k)</b>	0.18 Typical
<b>Dielectric Strength</b>	250 V/Mil Typical
<b>Maximum Continuous Working Temperature</b>	245°C (475°F) Typical
<b>Minimum Working Temperature</b>	-200°C (325°F) Typical
<b>Flammability</b>	Will not support combustion
<b>Bacterial Growth</b>	Will not support bacteria

Typical Design Properties

Traditional m & y values:

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

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

<sup>1</sup> Properties listed are typical and cannot be used as accept/reject specifications. Specifications are listed under Technical Bulletin 179.