

# **Gasketing for Steel Pipes & Equipment**

# **UNMATCHED SEALING RELIABILITY**

Gain the benefits of PTFE gasketing without the problems of creep and cold flow. Unmatched in sealing reliability, GORE<sup>®</sup> GR sheet gasketing provides a level of high-temperature and blowout resistance that's superior to any other PTFE sheet gasket.

GORE<sup>®</sup> GR sheet gasketing is made from 100% expanded PTFE. Because it is dimensionally stable, yet conformable, it is ideal for real-world flange conditions.

GORE® GR sheet gasketing has the benefits of conventional PTFE sheet gasketing without creep and cold flow that is commonly associated with that material. It conforms to rough sealing surfaces, yet compresses into an extremely tough gasket that makes a tight, long-lasting seal.

GORE<sup>®</sup> GR sheet gasketing is ideal for sealing steel pipe and equipment flanges for many aggressive chemicals.

## **TECHNICAL DATA**

#### MATERIAL

100% expanded PTFE, with multi-directional strength.

#### **TEMPERATURE RANGE**

-450°F to +600°F (-268°C to +315°C)

#### **CHEMICAL RESISTANCE**

Resistant to all media in range of pH 0-14 (except molten alkali metals and elemental fluorine, particularly at elevated temperatures).

#### **OPERATING PRESSURE**

Vacuum to 3,000 psig (200 bar)

#### STABILITY

Not subject to aging and can be stored indefinitely.



GR. SHEET GASKETING

# **KEY FEATURES**

- 100% proprietary ePTFE
- Increased resistance to creep and cold flow
- Chemically inert
- Soft and conformable
- Dimensionally stable
- High tensile strength
- Excellent blowout / high-temperature resistance

# **KEY BENEFITS**

- Highest sealing reliability in its class
- Seals irregular flanges
- Retains stress; minimum retorque





PROPERTIES	GORE® GR OPERTIES SHEET GASKETING	
STRESS TO SEAL		
32 rms surface 30 psig pressure	2800 psi (19 MPa)	
<b>CREEP RELAXATION</b>		
ARLA 4 days @ 600°F % relaxation	1/16" (1.6 mm) = 31% 1/8" (3.2 mm) = 43%	
SEALABILITY		
ROTT Constants:		
Gb (psi)	1/16" (1.6 mm) = 685	
	1/8" (3.2 mm) = 770	
"a"	1/16'' (1.6 mm) = 0.271	
	1/8'' (3.2 mm) = 0.274	
Gs (psi)	1/16" (1.6 mm) = 6.19E-02	
	1/8" (3.2 mm) = 9.38E-07	

## **MAXIMUM SURFACE STRESS**

#### **ROTT with Crush**

1/16" (1.6 mm)	>40,000 psi (>276 MPa)
1/8" (3.2 mm)	>40,000 psi (>276 MPa)

#### **HIGH TEMPERATURE RESISTANCE**

HOBT2 with cycling test	Tgr Values:
Class 150 pressure (435 psi)	1/16" (1.6 mm) = 638°F
Class 300 pressure (1010 psi)	1/8" (3.2 mm) = 549 °F

#### **STANDARD THICKNESSES**

1/32"	(1 mm)
1/16"	(1.6 mm)
1/8"	(3.2 mm)
1/4"	(6.4 mm)

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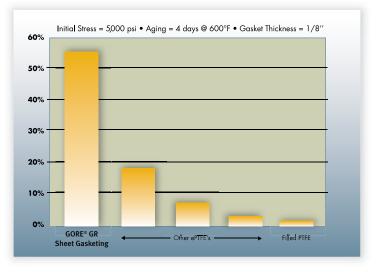
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AVAILABLE SIZES	
	60" x 60" Sheet (1524 mm x 1524 mm) Cut Gaskets

#### **REDUCES CREEP AND RETORQUING**

Due to the unique structure of the gasketing material, GORE® GR sheet gaskets are highly resistant to creep relaxation. They contain no binders, fillers or additives. Independent third-party testing and years of field usage confirm that GORE® GR gaskets exhibit less creep. The result is the high reliability in service.

### **ARLA TEST RESULTS – RESIDUAL STRESS**



#### FOR INDUSTRIAL USE ONLY

Not for use in food, drug, cosmetic or medical device manufacturing, processing, or packaging operations.

For detailed selection criteria, technical information, installation guidelines and the complete listing of local sales offices, please visit **gore.com/sealants.** 

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