



Universal Pipe Gasket

(STYLE 800)

Datasheet

Reliably seal a broad range of flange materials with this low stress-to-seal, exceptionally dimensionally stable and chemically resistant 100 % ePTFE gasket

TECHNICAL SPECIFICATIONS

Material: 100 % expanded PTFE (polytetrafluoroethylene), with multidirectional strength

Operating Range: The maximum applicable pressure and temperature depend mainly on the equipment and installation.

Typical use: -60 °C to 230 °C (-76 °F to 446 °F); industrial full vacuum¹ to 40 bar (580 psi)

Maximum use: -269 °C to 315 °C (-452 °F to 600 °F); full vacuum to 210 bar (3,000 psi)

For applications outside the typical use range, Gore recommends an application specific engineering design calculation and extra care during installation. Also, consider retorquing after a thermal cycle when the equipment has returned to an ambient temperature condition. Please contact Gore if further guidance is required.

Chemical Resistance: Chemical resistance to all media pH 0–14, except molten alkali metals and elemental fluorine.

Shelf Life: ePTFE is not subject to aging and can be stored indefinitely.

PRODUCT SIZES

GORE® Universal Pipe Gasket (Style 800) is available as ring or full face gaskets. Gaskets are manufactured to ASME and EN standards. For other sizes contact Gore.

Gasket Standard	Gasket Type	Pressure Class	Product		
			1.5 mm (1/16")	3.0 mm (1/8")	6.0 mm (1/4")
ASME B16.21	Ring	Class 150	NPS 1/2 to 24	NPS 1/2 to 24	NPS 1/2 to 24
		Class 300			
	Full Face	Class 150			
		Class 300			
NPS ID ASME B16.21	Ring	Class 150	NPS 1/2 to 12	NPS 1/2 to 12	NPS 1/2 to 12
		Class 300			
	Full Face	Class 150			
		Class 300			
EN 1514-1	Ring (IBC)	PN 2.5	DN 10 to 600	DN 10 to 600	N/A
		PN 6			
		PN 10	DN 10 to 600	DN 10 to 800	DN 15 to 600 ²
		PN 16			
		PN 25	DN 10 to 600	DN 10 to 600	N/A
		PN 40			

Special cut sizes available upon request.

TECHNICAL INFORMATION

Stress-to-Seal: Sealability of bolted flange connections is dependent on a number of variables, including those associated with the flange, bolt, gasket, and specific application operating conditions. In recognition of this complexity combined with the need for a straight forward minimum stress-to-seal guidance, Gore has provided minimum stress-to-seal values that leverage field experience and internal testing. Please contact Gore for assistance when considering GORE® Universal Pipe Gasket (Style 800) for your specific application.

Flange Material	Stress-to-Seal		Typical Application Conditions		Typical Thickness
	Recommended	Minimum Recommended	Temperature up to	Pressure up to	
Glass Lined Steel	20 MPa (2,900 psi)	10 MPa (1,450 psi)	230 °C (446 °F)	10 bar (145 psi)	6.0 mm (1/4")
FRP	10 MPa (1,450 psi)	5 MPa (725 psi)	100 °C (212 °F)	16 bar (232 psi)	3.0 mm (1/8")
Steel	20 MPa (2,900 psi)	10 MPa (1,450 psi)	230 °C (446 °F)	40 bar (580 psi)	1.5 mm (1/16") or 3.0 mm (1/8")

Gasket Design Factors:

EN 13555 provides the test method for generating the gasket parameters used in EN 1591-1 calculations. The resulting gasket parameters (Q_{min} , Q_{Smin} , Q_{Smax} , P_{QR} , E_G) are dependent on the selected test conditions. Users should select the values that best match their application. For complete EN 13555 data, please visit our website www.gore.com/sealants.

m & y are gasket constants used for flange design as specified in the ASME Boiler and Pressure Vessel Research Code Division 1 Section VIII Appendix 2. See the table on the back side for results.

AD 2000 B 7 gasket parameters are available on our website www.gore.com/sealants.

CERTIFICATIONS & APPLICATION INFORMATION

TA Luft, Oxygen Service (BAM), Chlorine Service, Blowout VDI 2200, Marine & Offshore applications (ABS), Leachable Fluoride and Chloride, ISO 9001.

Further information, including certificates, torque tables, safety information, is available on our website www.gore.com/sealants.

¹ Absolute pressure of 1 mmHg (Torr) = 133 Pa = 1.33 mbar = 0.019 psi
² Reduced inner diameter for glass-lined steel applications.



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	Thickness			Test Conditions		
	1.5 mm (1/16")	3.0 mm (1/8")	6.0 mm (1/4")	Gasket Stress	Temperature	Pressure
Sealability						
Q _{min} (L _{0.1}) Q _{min} (L _{0.01}) Q _{Smin} ¹	6 MPa (870 psi) 8 MPa (1,160 psi) 5 MPa (725 psi)	5 MPa (725 psi) 8 MPa (1,160 psi) 6 MPa (870 psi)	5 MPa (725 psi) 8 MPa (1,160 psi) 8 MPa (1,160 psi)	Variable ²	Room	40 bar (580 psi)
m & y	2.4 & 10.3 MPa (1,500 psi) for steel material ⁴ 1.4 & 5 MPa (725 psi) for glass-lined steel material ^{5,6}			Variable ³	Room	Variable ³
ASTM F37-95	0.48 ml/h ⁷			6.9 MPa (1,000 psi)	Room	0.5 bar (7 psi)
ARLA Before After	2.86E-05 mg/s < 1E-07 mg/s	1.29E-04 mg/s < 1E-07 mg/s		34.5 MPa (5,000 psi)	315 °C (600 °F)	55 bar (800 psi)
ROTT Gb a Gs	441 psi 0.3 8.55E-01 psi	155 psi 0.411 5.41E-02 psi		Variable ⁸	Room	Variable ⁸
Relaxation						
P _{QR} ²	0.84	0.77	0.75	10 MPa (1,450 psi)	Room	
	0.92	0.86	0.79	20 MPa (2,900 psi)		
	0.96	0.92	0.85	30 MPa (4,350 psi)		
	0.59	0.44	0.38	10 MPa (1,450 psi)	150 °C (302 °F)	
	0.76	0.59	0.42	20 MPa (2,900 psi)		
	0.90	0.79	0.61	30 MPa (4,350 psi)	230 °C (446 °F)	
	0.46	0.36	0.29	10 MPa (1,450 psi)		
	0.78	0.49	0.39	20 MPa (2,900 psi)		
	0.81	0.69	0.55	30 MPa (4,350 psi)		
ASTM F38-95	11 % ⁷			20.7 MPa (3,000 psi)	100 °C (212 °F)	
ARLA	23 %	52 %		34.5 MPa (5,000 psi)	315 °C (600 °F)	
Crush Strength						
Q _{Smax} ²	230 MPa (33,360 psi)	230 MPa (33,360 psi)	200 MPa (29,010 psi)		23 °C (73 °F)	
ROTT	276 MPa (40,031 psi)	250 MPa (36,260 psi)			Room	
Compressibility						
ASTM F36-95	55 % ⁹			17.2 MPa (2,500 psi)	Room	
Recovery						
ASTM F36-95	16 % ⁹			17.2 MPa (2,500 psi)	Room	
Blowout						
VDI 2200 (06-2007)	Pass Test Step 1 ⁵ Pass Test Step 2 ⁵			30 MPa (4,350 psi)	230 °C (446 °F)	60 bar (870 psi)
HOBT with Cycling	Trial Gasket Temperature 315 °C (600 °F) ⁵			34.5 MPa (5,000 psi)		30 bar (435 psi)

1 Up to L_{0.01} and Q_A ≥ 20 MPa

2 Tested per EN 13555

3 Tested per CETIM, reference report no.74630/61/a

4 Internal pressure up to 40 bar (580 psi) & T3 seal

5 Tested thickness 3.0 mm (1/8")

6 Internal pressure up to 10 bar (145 psi) & T3 seal

7 Tested thickness 0.08 mm (0.031")

8 Tested per ROTT Draft 9 Soft Gasket Test Procedure

9 Tested thickness 1.14 mm (0.045")

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

Supplied by

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

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