Gasket Tape Series 500

Datasheet

This exceptionally creep resistant 100 % ePTFE form-in-place gasket tape delivers worry-free sealing performance for large steel flanges.

Technical Specifications

Material: 100 % expanded PTFE (polytetrafluoroethylene), with multidirectional strength. This product is supplied with an adhesive backer only to aide in the product installation.

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 vacuum[1] 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. To ensure optimal adhesive function, we recommend use within two years of date of purchase when stored under normal[2] conditions.

Product Sizes

GORE® Gasket Tape Series 500 is available in multiple width, thickness, and spool length combinations.

Width	Thickness
10 mm (3/8")	3 mm (1/8")
15 mm (1/2")	6 mm (1/4")
20 mm (3/4")	
25 mm (1")	
30 mm (1.25")	
40 mm (1.5")	
50 mm (2")	

Products available in all thickness x width combinations. All parts manufactured to metric dimensions.

Technical Information

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.

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, Blowout (VDI 2200), Oxygen Service (BAM), Leachable Fluoride and Chloride, ISO 9001.

Further information, including certificates, 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 21 °C (70 °F) 50 % Relative Humidity

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	Thickness		Test Conditions		
	3.0 mm (1/8")	6.0 mm (1/4")	Gasket Stress	Temperature	Pressure
Sealability					
Q_{min} ($L_{0.1}$)	22 MPa (3,190 psi)	16 MPa (2,320 psi)	Variable [2]	Room	40 bar (580 psi)
Q_{min} ($L_{0.01}$)	29 MPa (4,205 psi)	24 MPa (3,480 psi)			
Q_{Smin} [1]	10 MPa (1,450 psi)	10 MPa (1,450 psi)			
m & y	2.5 & 19.0 MPa (2,750 psi)	2.5 & 23.0 MPa (3,330 psi)	Variable [3]	Room	Variable [3]
Relaxation					
P_{QR} [2]	0.88	0.86	30 MPa (4,350 psi)	Room	
	0.90	0.91	50 MPa (7,250 psi)		
	0.47	0.50	30 MPa (4,350 psi)	150 °C (302 °F)	
	0.58	0.48	50 MPa (7,250 psi)		
	0.48	0.33	30 MPa (4,350 psi)	230 °C (446 °F)	
	0.50	0.38	50 MPa (7,250 psi)		
Crush Strength					
Q_{Smax} [2]	140 MPa (20,300 psi)	120 MPa (17,400 psi)		Room	
Compressibility					
ASTM F36-99	46 %	51 %	17.2 MPa (2,500 psi)	Room	
Recovery					
ASTM F36-99	20 %	17 %	17.2 MPa (2,500 psi)	Room	
Blowout					
VDI 2200 (06-2007)	Pass Step 1 Pass Step 2	Pass Step 1 Pass Step 2	30 MPa (4,350 psi)	230 °C (446 °F)	60 bar (870 psi)

1 for 3 mm tapes: up to L0.01 and QA ≥ 20 MPa
for 6 mm tapes: up to L0.01 and QA ≥ 20 MPa and QA < 80 MPa
2 Recognizing the absence of standard tests for form-in-place gaskets, Gore based this testing on EN 13555 on the informative Annex G which provides some guidance for generating gasket design parameters for form-in-place products.
3 30 mm wide tapes in circle of 230 mm diameter.

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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