



GORE® Gasket Tape Series 500

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

Technical Specifications

Material

100% ePTFE (expanded polytetrafluoroethylene), with multidirectional strength. This product is supplied with an adhesive backer only to aid 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 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. To ensure optimal adhesive function, we recommend use within two years of date of purchase when stored under normal² conditions.

Product Sizes

GORE® Gasket Tape Series 500 is available in all listed width and thickness combinations, and multiple spool lengths. Parts are manufactured to metric dimensions.

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

Technical Information

Gasket design factors

The sealability of a bolted flange connection depends upon a number of variables associated with the flange, bolt, gasket, and application-specific operating conditions.

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 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 next page for results.

AD 2000 B 7 gasket parameters are available on 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

Technical Data: GORE® Gasket Tape Series 500

	Thickness		Test conditions		
	3.0 mm (1/8")	6.0 mm (1/4")	Gasket Stress	Temperature	Pressure
Sealability					
Q _{min} (L _{0.1})	15 MPa (2,175 psi)	19 MPa (2,755 psi)	Variable ⁴	Room	40 bar (580 psi)
Q _{min} (L _{0.01})	21 MPa (3,045 psi)	26 MPa (3,770 psi)			
Q _{Smin} ³	<10 MPa (<1,450 psi)	12 MPa (1,740 psi)			
m	2.5	2.5	Variable ⁵	Room	Variable ⁵
y	19.0 MPa (2,750 psi)	23.0 MPa (3,330 psi)			
Relaxation					
P _{QR} ⁴	0.92	0.85	30 MPa (4,350 psi)	Room	–
	0.94	0.88	50 MPa (7,250 psi)		
	0.53	0.41	30 MPa (4,350 psi)	150 °C (302 °F)	–
	0.59	0.43	50 MPa (7,250 psi)		
	0.45	0.31	30 MPa (4,350 psi)	230 °C (446 °F)	–
	0.47	0.33	50 MPa (7,250 psi)		
Crush strength					
Q _{Smax} ⁴	130 MPa (18,855 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		30 MPa (4,350 psi)	230 °C (446 °F)	60 bar (870 psi)

Certifications & Application Information

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

Further information, including certificates and safety
information, is available on gore.com/sealants.

- ³ For 3 mm tapes: maintaining >L0.01 and Q_A 40 MPa
For 6 mm tapes: maintaining >L0.01 and Q_A 40 MPa
⁴ Recognizing the absence of standard tests for form-in-place gaskets,
Gore based this testing on EN 13555, with reference to the informative
Annex G which provides some guidance for generating gasket design
parameters for form-in-place products.
⁵ 30 mm wide tapes in circle of 230 mm diameter.

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