

# GORE Series 500

## Saves You Time, Money and Trouble

GORE<sup>®</sup> Series 500 Gasket Tape represents the latest advancement in worry-free sealing performance and efficiencies for steel piping and equipment. This cutting-edge product delivers dramatically improved creep resistance to maximize the operational reliability of large steel flanged applications.

GORE<sup>®</sup> Series 500 Gasket Tape fits any shape instantly. The highly compressible tape forms a very tight seal that is long-lasting while also handling the rigors of virtually any chemical process.

Unlike traditional large gaskets, GORE<sup>®</sup> Series 500 Gasket Tape is formed in place quickly and easily. Customization at the time of installation eliminates the long lead times for ordering pre-cut gaskets and minimizes the need for extensive gasket inventories.

GORE<sup>®</sup> Series 500 Gasket Tape is brought to you by the leader in ePTFE technology, delivering knowledge, integrity and proven results – along with decades of experience working with processing plants throughout the world.

#### **TECHNICAL DATA**

#### MATERIAL

100% expanded PTFE (ePTFE), with multidirectionally oriented fibril structure

#### **TEMPERATURE RANGE OF THE MATERIAL**

-268°C to +315°C (-450°F to +600°F)

#### **CHEMICAL RESISTANCE**

Resistant to all media (pH 0-14), except for molten or dissolved alkali metals and elemental fluorine particularly at high temperatures.

#### **OPERATING PRESSURE**

In general, vacuum to 40 bar (580 psi). The specific application governs the operating range of the installed gasket due to the strong influence of many factors, such as operating temperature, flange size, gasket stress, and installation practices.

#### SHELF LIFE

The ePTFE gasket is not subject to aging and can be stored indefinitely. To minimize adhesive degradation store the product in ambient conditions.

#### **PHYSIOLOGICAL SAFETY**

Physiologically harmless within temperature range of material.



GORE Series 500

### **KEY FEATURES**

- Gasket tape on a spool
- 100% ePTFE
- Resists creep & cold flow
- Chemically inert
- Highly conformable

### **KEY BENEFITS**

- Fits any shape instantly
- Eliminates long lead times to prefabricate large, one-piece gaskets
- Easy to handle
- Can be used with virtually any media to enable gasket consolidation
- Overcomes flange deviation
- Enhances system reliability & safety



#### **TYPICAL PROPERTIES**

| Thickness  | 3mm (1/8")           | 6mm (1/4")           |
|--|----------------------|----------------------|
| Creep Relaxation*  |                      |                      |
| P <sub>QR,</sub> 23°C (73°F)<br>P <sub>QR,</sub> 169°C (336°F) | 0.95<br>0.57         | 0.9<br>0.46          |
| Sealability*   |                      |                      |
| Q <sub>min</sub> (0.1)   | 19MPa<br>(2,755 psi) | 23MPa<br>(3,335 psi) |
| m&v  | 2.5 & 2.750 psi      | 2.5 & 3.330 psi      |

#### Maximum Surface Stress (Crush)\*

| Q <sub>smax</sub><br>Ambient Temperature | 170MPa<br>(25,000 psi) | 160MPa<br>(23,000 psi) |  |
|--|------------------------|------------------------|--|
| Compressibility                          |                        |                        |  |
| ASTM F-36                                | 54%                    | 44%                    |  |

| Recovery |  |
|----------|--|
|          |  |

| ASTM F-36 | 16% | 27% |
|-----------|-----|-----|
|           |     |     |

\* Recognizing the absence of standard tests for form-in-place gaskets, Gore has leveraged the latest industry test methods to characterize the performance of GORE® Series 500 Gasket Tape. Creep relaxation, sealability, and crush data is based on EN13555, a European test standard for ring gaskets that defines parameters for flange design. These tests were conducted with a fixture stiffness of 500 kN/mm. Creep relaxation was measured at the corresponding minimum stress to seal using 30mm wide strips.

#### **QUALITY ASSURANCE**

The GORE Quality Management System has been certified by DQS in accordance with ISO 9001. Component suppliers are also integrated into this system.



by W. L. Gore & Associates GmbH certified according to DIN ISO 9001:2000

| Supplied By: | <br> |  |  |
|--------------|------|--|--|
|              |      |  |  |
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All technical information and advice given here is based on our previous experiences and/or test results. We give this information to the best of our knowledge, but assume no legal responsibility. Customers are asked to check the suitability and usability in the specific application, since the performance of the product can only be judged when all necessary operating data are available. Specifications are subject to change without notice. Gore's terms and conditions of sale apply to the purchase and sale of the product.

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Creep resistance data based on EN13555 using 15mm x 3mm tape formed into a 150mm skived ring.  $P_{QR}$  values were obtained at 30 MPa initial gasket stress at 150°C.

#### **AVAILABLE SIZES**

| Thickness (mm)<br>Width (mm) | 3 | 6 |
|------------------------------|---|---|
| 10                           | Х |   |
| 15                           | Х | Х |
| 20                           | Х | Х |
| 25                           | Х | Х |
| 30                           | Х | Х |

Available on 5, 10 and 20m spools

#### **INSTALLATION GUIDELINES**

Please refer to detailed installation instructions that can be found at **www.gore.com/sealants/downloads.** 

#### 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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