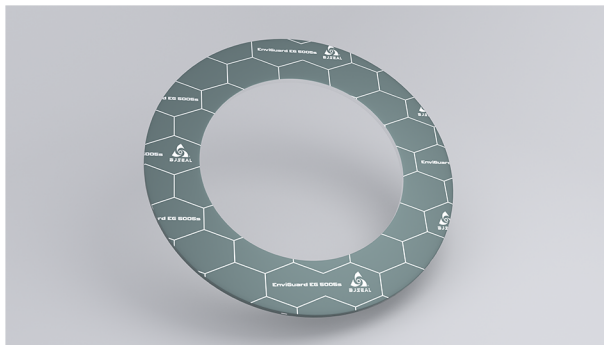
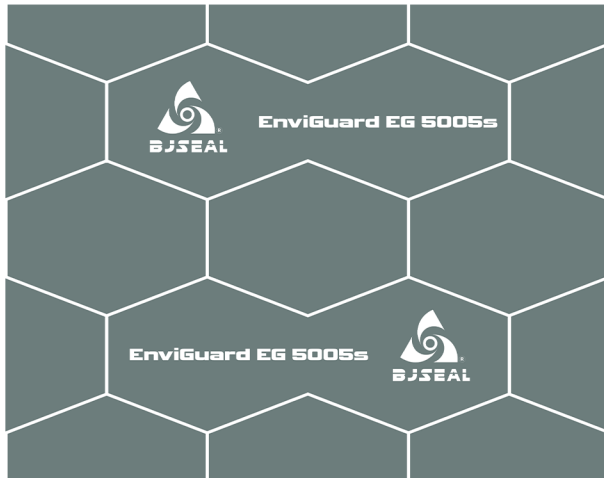


# TECHNICAL DATA SHEET

## BJSEAL-Enviguard EG 5005S



Fluid Sealing Solutions



### Sheet Sizes

- 1500 X 1500 mm
- 1500 X 2000 mm
- 1500 X 2250 mm
- 1300 X 3900 mm
- 1500 X 4500 mm
- 1270 X 1270 mm
- 1500 X 1000 mm
- 2100 X 3000 mm
- 1000 X 1000 mm
- 1500 X 3000 mm
- 1500 X 4000 mm
- 2000 X 3000 mm

### Have an application engineering questions or need expert advice?

Our team at BJSEAL is ready to assist you! Whether you need support with a specific application or have technical inquiries, we're here to provide tailored solutions that meet your needs. Don't hesitate to reach out to us at [gasket@bjseal.com](mailto:gasket@bjseal.com) we'll be delighted to help you find the right answers.

The BJSEAL-Enviguard 5005S is a versatile gasket material designed for general-purpose sealing applications, particularly in low-stress conditions. This material is composed of a blend of mineral and organic fibers, combined with inorganic fillers, and bound together with a nitrile butadiene rubber (NBR) binder. Reinforced with a steel wire insert, the Enviguard 5005S offers enhanced structural stability, making it suitable for use with medium-pressure steam, water, oils, fuels, and inert gases. This reliable gasket material is ideal for a variety of industrial applications where dependable performance and durability are required.

This gasket material is engineered with a blend of organic fibers, mineral fibers, cellulose fibers, and an NBR binder to provide superior strength, flexibility, and chemical resistance, with the added durability of steel wire reinforcement.

### Key Features and Applications:

#### Features:

- **Reinforced Material Composition:** A blend of mineral fiber, organic fiber, and inorganic fillers, combined with an NBR binder, and reinforced with a steel wire insert for added stability and strength.
- **Medium-Pressure Performance:** Designed to provide effective sealing in medium-pressure environments, ensuring consistent performance in low-stress conditions.
- **Chemical and Thermal Versatility:** Suitable for sealing a range of substances, including steam, water, oils, fuels, and inert gases, offering reliable chemical resistance.
- **Durable and Reliable:** The steel wire reinforcement ensures the gasket maintains its integrity and sealing capabilities over time, even under varying pressure conditions.

#### Applications:

- **Steam Systems:** Ideal for medium-pressure steam applications, providing reliable sealing in boilers, piping systems, and heat exchangers.
- **Water and Cooling Systems:** Suitable for use in plumbing, HVAC, and cooling systems, ensuring effective sealing in environments exposed to water and cooling liquids.
- **Oil and Fuel Systems:** Reliable for sealing in automotive, petrochemical, and industrial machinery where exposure to oils and fuels is common.
- **Inert Gas Sealing:** Effective in sealing inert gases in industrial processes, providing dependable performance in low-stress conditions.
- **General Industrial Use:** Versatile enough to handle a wide range of general-purpose industrial applications where medium pressure and low-stress conditions are present.

### Key Industries

- HVAC Systems
- Water Treatment Plants
- Oil & Fuel Handling
- General Industrial Machinery
- Automotive Industry
- Food & Beverage Industry
- Pulp and Paper Industry
- Chemical Processing

### Thickness

- Metallic – 0.8 mm to 6 mm
- Non Metallic – 0.4 mm to 6 mm

### Tolerance

- Length and width -  $\pm 5\%$
- Thickness  $\leq 1.0\text{mm}$  -  $\pm 0.1\text{mm}$
- Thickness  $\geq 1.0\text{mm}$  -  $\pm 10\%$

# TECHNICAL DATA SHEET

BJSEAL-EnviGuard EG 5005S



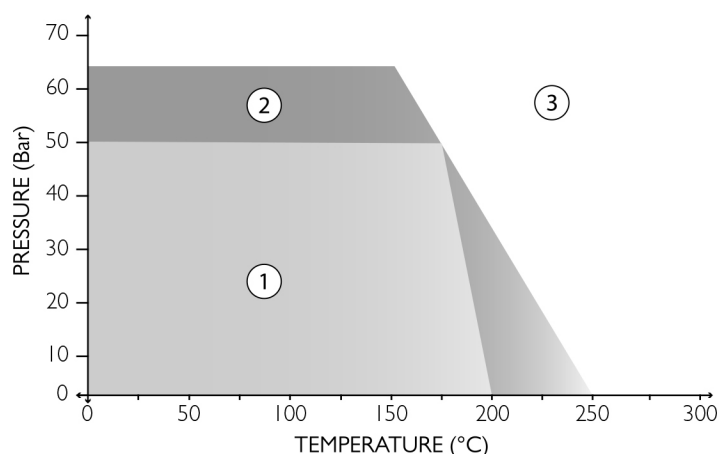
Fluid Sealing Solutions

## Technical Data

| Physical Properties            | Test method | Unit              | Specific Value |
|--------------------------------|-------------|-------------------|----------------|
| Density                        | ASTM F 1315 | g/cm <sup>3</sup> | 1.70 - 2.0     |
| Compressibility                | ASTM F 36 J | %                 | 7.0 - 17.0     |
| Recovery                       | ASTM F 36 J | %                 | ≥ 40.0         |
| Tensile Strength               | ASTM F 152  | N/mm <sup>2</sup> | ≥ 8.0          |
| Creep Relaxation               | ASTM F 38 B | %                 | ≤ 40.0         |
| Stress Relaxation (16h 175° C) | DIN 52913   | Mpa               | ≥ 17.0         |
| ASTM oil no.3 (5h, 150°C)      | ASTM F 146  |                   |                |
| Thickness Increase             |             | %                 | ≤ 15.0         |
| Weight Increase                |             | %                 | ≤ 20.0         |
| ASTM Fuel B (5h, 23°C)         | ASTM F 146  |                   |                |
| Thickness Increase             |             | %                 | ≤ 20.0         |
| Weight Increase                |             | %                 | ≤ 20.0         |
| Water (5h, 100°C)              | ASTM F 146  |                   |                |
| Thickness Increase             |             | %                 | ≤ 10.0         |
| Weight Increase                |             | %                 | ≤ 20.0         |
| Max. Peak Temperature          |             | °C/°F             | 250/482        |
| Max. Operating Temperature     |             | °C/°F             | 200/392        |
| Max. Operating Pressure        |             | Bar/PSI           | 65/943         |
| Colour                         |             |                   | Gray/Blue      |

The values given in the table refer to the gasket thickness 2.0mm  
Customers can request different color options.

## Pressure vs Temperature



## Other Envi-Guard Options

EG 5005 - Approx 165°C/329°F @ 50 Bar/725 psi  
EG 5010 - Approx 200°C/392°F @ 60 Bar/870 psi  
EG 5015 - Approx 225°C/437°F @ 80 Bar/1160 psi  
EG 5020 - Approx 250°C/662°F @ 100 Bar/1450 psi  
EG 5020S - Approx 300°C/572°F @ 120 Bar/1740 psi  
EG 5030S - Approx 300°C/572°F @ 120 Bar/1740 psi  
EG 5035 - Approx 275°C/527°F @ 100 Bar/1450 psi  
EG 5040 - Approx 200°C/392°F @ 60 Bar/870 psi  
EG 5045 - Approx 350°C/662°F @ 140 Bar/2030 psi  
EG 5050 - Approx 350°C/662°F @ 80Bar/1160 psi  
EG 5055S - Approx 250°C/662°F @ 140 Bar/2030 psi

1. Suitable for chemical Compatibility
2. Suitable in some cases but check your application requirements with a technician team
3. Contact BJSEAL for applications with higher temperatures and pressures.

All recommendations and information contained in this data sheet are, to the best of our knowledge, accurate. Product specifications are intended as guidelines. Since service conditions are beyond our control, users must ensure that the products are suitable for their intended use. No guarantee or warranty is given or implied regarding the information or recommendations provided, nor that the use of the products will not infringe on the rights of third parties. We reserve the right to change product design and properties without prior notification.