



# API STD 622 GRAPHITE PACKING GR8622 ESP

## Composition

Pure modified expanded mineral graphite  
Nickel alloy, wire-reinforced

## Characteristics

**Advanced Graphite Material:** The PGT4 GR8622 ESP is manufactured using the flexible modified graphite foil, Planigraph ESP, which is engineered under strict guidelines to ensure superior performance.

**Low Emissions Compliance:** This product meets the Low Emissions API std 622 3rd Edition and ISO 15848 BH C01/C02 standards, making it an ideal choice for reducing fugitive emissions in various industrial applications.

**Versatility:** Suitable for use in Oil & Gas, Cryogenic, Hydrogen, and most Chemical services, as well as steam applications, providing a wide range of utility.

**Temperature and Pressure Tolerance and Chemical Compatibility:** It is capable of withstanding extreme temperatures, from -200°C to 650°C, and pressures up to 500 bar, covering pressure classes from 150 to 2500 lbs, and compatible with a wide pH range (0 to 14), except for strong oxidizers, making it versatile for various industrial environment

**Enhanced Sealing Capabilities:** The PGT4 GR8622 ESP offers excellent sealing properties, a low coefficient of friction, and low permeability, outperforming current technologies without the use of lubricants.



## API std 622 Graphite Packing GR8622 ESP


### APPROVALS

- API std 622 3rd Ed. FE 260°C (500°F)
- API std 622 3rd Ed. ANNEX C FE 400°C (750°F)
- ISO 15848 BH-C01/C02-400°C (750°F)
- Limited detrimental materials and Ash
- Weight Loss API std 622 3rd Ed., EN 14772 S.6.7, FSA-G-604-07 METHOD B
- TQ39 - 50.000 h Target Temperature 408°C
- Fire Test API 607, API 6FA, ISO 10497
- Corrosion Test RT and HT
- MESG 85/203 and 85/204
- H2 Compatible
- PTFE Free
- PFAS Free
- Wet Lubricant Free

## Applications

Latest innovation in industrial valve sealing solutions – the Planigraph ESP and the Low Emissions PGT4 GR8622 ESP graphite stem packing for industrial valves. This groundbreaking product is designed to meet the stringent requirements of modern industry, ensuring both high performance and compliance with environmental standards.

## Tech Data

|   | P bar | lbf/in2 | Vm/S | f/pm | pH     | T°C              | T°F               |
|---|-------|---------|------|------|--------|------------------|-------------------|
|  | 500   | 7250    | 2    | 400  | 0 ÷ 14 | -200 ÷ 450 / 650 | -330 ÷ 840 / 1200 |

- Never use the product to the maximum temperature and pressure associated. Consult the manufacturer for further information
- The peak temperature can be sustained for short exposures
- With weakly oxidizing agents and hot air the temperature must be limited to 450 °C
- With steam and non-oxidizing fluids the temperature must be limited to 650 °C
- Graphite and carbon cannot be used with oxidizing fluids



The information in this publication, as well as any additional information provided to users, is based on experience and is shared to the best of our current knowledge. However, due to numerous factors beyond our knowledge and control that may affect the use of these products, no warranties are provided or implied regarding this information. The operating limits presented in this publication do not imply that these values can be applied simultaneously. Do not use the product at the maximum temperature and pressure values simultaneously. The maximum temperature is suitable only for short-term exposure under specific conditions. Specifications are subject to change without prior notice. The picture in the DS may not accurately depict the exact color and/or markings of the product.

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| sezione mm | sezione inch | kg/box | lbs/box | mt/box | ft/box | mt/kg | ft/lbs |
|------------|--------------|--------|---------|--------|--------|-------|--------|
| 3          | 1/8"         | 1      | 2.2     | 58.8   | 192.9  | 58.8  | 87.6   |
| 4          | -            | 1      | 2.2     | 37.0   | 121.4  | 37.0  | 55.1   |
| 5          | 3/16"        | 1      | 2.2     | 22.2   | 72.8   | 22.2  | 33.1   |
| 6          | -            | 2.5    | 5.5     | 38.5   | 126.3  | 15.4  | 22.9   |
| 6.5        | 1/4"         | 2.5    | 5.5     | 31.3   | 102.7  | 12.5  | 18.7   |
| 8          | 5/16"        | 2.5    | 5.5     | 21.7   | 71.2   | 8.7   | 12.9   |
| 9.5        | 3/8"         | 2.5    | 5.5     | 18.5   | 60.7   | 7.4   | 11.0   |
| 10         | -            | 2.5    | 5.5     | 16.7   | 54.8   | 6.7   | 10.0   |
| 11         | 7/16"        | 2.5    | 5.5     | 13.9   | 45.6   | 5.6   | 8.3    |
| 12         | -            | 2.5    | 5.5     | 11.6   | 38.1   | 4.6   | 6.9    |
| 12.7       | 1/2"         | 2.5    | 5.5     | 10.4   | 34.1   | 4.2   | 6.2    |
| 14         | 9/16"        | 5      | 11      | 17.2   | 56.4   | 3.4   | 5.1    |
| 16         | 5/8"         | 5      | 11      | 13.5   | 44.3   | 2.7   | 4.0    |
| 17.5       | -            | 5      | 11      | 12.5   | 41.0   | 2.5   | 3.7    |
| 18         | 11/16"       | 5      | 11      | 11.1   | 36.4   | 2.2   | 3.3    |
| 19         | 3/4"         | 5      | 11      | 10.0   | 32.8   | 2.0   | 3.0    |
| 22         | 7/8"         | 5      | 11      | 7.5    | 24.6   | 1.5   | 2.2    |
| 25.5       | 1"           | 5      | 11      | 5.8    | 19.0   | 1.2   | 1.7    |

● The weight per meter and the packaging's weight may have a tolerance of +/- 10%. Other sizes and packaging are available on demand.



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