



# GRAPHITE PACKING GR81SGR

## Composition

- Pure mineral flexible expanded graphite strands
- Nickel-Alloy reinforcement
- Impregnation with colloidal graphite

## Characteristics

The GR81SGR packing is made with expanded mineral graphite with a special reinforcement that ensure high extrusion resistance and excellent elastic return. Thanks to its particular structure, GR81SGR maintains its performance and elastic properties over time, making it an ideal choice for the most demanding industrial applications. GR81SGR is highly resistant to wear and abrasion and has good thermal conductivity, making it suitable for high-temperature applications. In summary, GR81SGR is an effective and cost-efficient solution to ensure the sealing and reliability of industrial equipment in demanding operating environments.

## Applications

The GR81SGR graphite packing is specifically designed for use in high temperature and high pressure industrial valves. Thanks to its resistance to extrusion and elastic recovery, this packing offers reliable and long-lasting performance even in demanding operating environments. In particular, GR81SGR is ideal for reciprocating dynamic applications at low speeds, where a reliable and wear-resistant seal is required. With its advanced technical features, GR81SGR is an excellent choice for ensuring the safety and reliability of industrial valves in a variety of applications.

## Tech Data

|   | P bar | lbf/in2 | Vm/S | f/pm | pH     | T °C             | T °F              |
|---|-------|---------|------|------|--------|------------------|-------------------|
|  | 500   | 7500    | 1    | 200  | 0 ÷ 14 | -200 ÷ 450 / 650 | -330 ÷ 840 / 1200 |
|  | 100   | 1500    | 1    | 200  |        |                  |                   |

- Never use the product at its maximum rated temperature and pressure. Consult the manufacturer for further information.
- The peak temperature can be sustained only for short exposure periods.
- 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.
- Flexible graphite and carbon yarns shall not be used with oxidizing fluids.



## Graphite Packing GR81SGR

The Carrara graphite gland packing product range includes items made with all available graphite yarns, which, according to ASTM F2191 classification, are Type I—Continuous yarn, Type II—Staple yarn, and Type III—Flexible yarn. All graphite gland packings are protected with passive or active corrosion inhibitors (Grade A—Treated with corrosion inhibitor), although untreated gland packings (Grade B—No corrosion inhibitor) are available on demand. The performer and premium grade product ranges include Class 2 items, while the Industrial grade product range offers Class 1 products. Carrara graphite gland packings are specialized for each application, and a proper selection of the item allows for maximizing the sealing performance while reducing the component management costs.



The information provided in this publication, as well as that supplied to users in other forms, is based on our experience and communicated according to the best knowledge available. However, since numerous factors beyond our knowledge and control may influence the use of the products, no warranty, explicit or implicit, is given regarding such content. The operating limits indicated do not constitute confirmation that these values can be applied simultaneously. Avoid using the product at the maximum temperature and pressure limits. The maximum temperature is sustainable only for short periods under specific conditions. Specifications may be changed without notice. The images in the DS may not exactly represent the product, its color and/or marking.



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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     | 83.3   | 273.3  | 83.3  | 124.1  |
| 4          | -            | 1      | 2.2     | 47.6   | 156.2  | 47.6  | 70.9   |
| 5          | 3/16"        | 1      | 2.2     | 30.3   | 99.4   | 30.3  | 45.1   |
| 6          | -            | 2.5    | 5.5     | 53.2   | 174.5  | 21.3  | 31.7   |
| 6.5        | 1/4"         | 2.5    | 5.5     | 41.7   | 136.8  | 16.7  | 24.8   |
| 8          | 5/16"        | 2.5    | 5.5     | 31.3   | 102.7  | 12.5  | 18.7   |
| 9.5        | 3/8"         | 2.5    | 5.5     | 21.2   | 69.6   | 8.5   | 12.6   |
| 10         | -            | 2.5    | 5.5     | 19.2   | 63.0   | 7.7   | 11.4   |
| 11         | 7/16"        | 2.5    | 5.5     | 15.9   | 52.2   | 6.4   | 9.5    |
| 12         | -            | 2.5    | 5.5     | 13.4   | 44.0   | 5.3   | 8.0    |
| 12.7       | 1/2"         | 2.5    | 5.5     | 11.9   | 39.0   | 4.8   | 7.1    |
| 14         | 9/16"        | 5      | 11      | 19.6   | 64.3   | 3.9   | 5.8    |
| 16         | 5/8"         | 5      | 11      | 14.3   | 46.9   | 2.9   | 4.3    |
| 17.5       | -            | 5      | 11      | 13.3   | 43.6   | 2.7   | 4.0    |
| 18         | 11/16"       | 5      | 11      | 11.8   | 38.7   | 2.4   | 3.5    |
| 19         | 3/4"         | 5      | 11      | 10.7   | 35.1   | 2.1   | 3.2    |
| 22         | 7/8"         | 5      | 11      | 7.8    | 25.6   | 1.6   | 2.3    |
| 25.5       | 1"           | 5      | 11      | 6.2    | 20.3   | 1.2   | 1.8    |

- The weight per meter and the packaging weight may have a tolerance of  $\pm 10\%$ . Other sizes and packaging options are available on request.



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**CARRARA**  
GLOBAL SEALING SOLUTIONS

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