# PLANIGRAPH™ PREMIUM LGP

## Composition

- High-purity expanded mineral graphite Premium Grade with corrosion inhibitor and oxidation retardant

## Characteristics

The expanded mineral graphite of Planigraph™ Premium LGP meets the requirements of the latest update of the EU directive 2011/65/EC (RoHS) and complies with the requirements of the oxidation test EN 14772 section 6.7. This type of graphite gasket ensures a reliable and durable sealing, making it an ideal option for all industrial applications, from the simplest to the most demanding.

## Applications

Expanded mineral graphite is also known for its chemical resistance, making it suitable for applications involving almost all fluids except for oxidants. In addition, expanded mineral graphite gaskets can be easily cut and shaped to fit the specific needs of the application. Thanks to its high thermal resistance, expanded mineral graphite can withstand high temperatures without damage or deformation, ensuring a reliable and safe sealing.

## Tech Data

| Planigraph™ Premium LGP | | |
|---|---|---|
| Graphite density | gr/cm3 | 1.0 |
| Carbon Content | % | ≥ 99.0 |
| Ash Content | % | < 1.0 |
| Sulphur Content (beforer inhibitiors addition) | ppm | ≤ 100 |
| Chloride Content (after inhibitiors addition) | ppm | ≤25 |
| Fluoride Content (after inhibitiors addition) | ppm | ≤25 |
| Halogen Content (after inhibitiors addition) | ppm | ≤ 100 |
| Inhibitor of oxidation and corrosion | - | Yes |
| Thermal Weight Loss 670°C/h | % | ≤ 4.0 |
| Tensile Strenght | MPa | ≥ 4.0 |
| Compressibility | % | 40 - 50 |
| Recovery | % | > 7 |
| Relaxation stress 16h, 300°C, initial stress 50 N/mm2 - DIN 52913 | N/mm2 | > 45 |
| Temperature max with steam | °C | 550 |
| Temperature max with weak oxidants | °C | 450 |
| Temperature min cryo | °C | -196 |
| Maximum assembly load RT | N/mm2 | 40 |
| Maximum operating pressure | bar | 40 |

- Never use the product at its maximum rated temperature and pressure simultaneously. Consult the manufacturer for further information.
- When used with weakly oxidizing agents or hot air, the temperature shall not exceed **450 °C**.
- Flexible graphite and carbon yarn shall not be used with oxidizing fluids.
- Other gasketing sheet dimensions and thicknesses are available on request.
- The dimensional tolerances of the gasketing sheets are: W and L ±3.0%, H ±10.0%.

| | | |
|---|---|---|
| Size | 1500 x 1500 | 60” x 60” |
| Thickness | 0.8 ÷ 3.0 | 1/32” ÷ 1/8" |

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## Planigraph™ Premium LGP

The Planigraph™ sales program includes the following items Premium grade and Industrial Grade:

- LG without insert
- LGR with single smooth insert
- LGRF with single or multiple tanged inserts
- LGRHDI with multiple smooth inserts

The maximum allowable load on expanded graphite gaskets depends on the type and number of metallic inserts and is closely related to the effective sealing area. Verification requires calculating the ratio [(De–Di)/thk], where **De** and **Di** are the diameters of the area actually compressed between the flanges and **thk** is the gasket thickness. The ratio must be ≥ 4. On WN RF flanges, the gaskets can be used up to class 300 psi.

The Planigraph™ line also includes corrugated graphite tapes for maintenance:

- NG – corrugated tape in expanded mineral graphite
- NGA – adhesive corrugated tape in expanded mineral graphite

CARRARA® GLOBAL SEALING SOLUTIONS

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