



PLANIGRAPH™ LGRHDI

Composition

- Expanded Graphite Industrial Grade
- Multiple smooth SS316L inserts with a thickness of 0.05 mm

Characteristics

The Planigraph™ LGRHDI graphite gasketing sheets are suitable for high-temperature and high-pressure applications on RF, FF, LMF, and LTG flanges in piping or industrial machinery. Planigraph™ LGRHDI features low relaxation values combined with excellent mechanical strength.

Applications

The graphite gaskets Planigraph™ LGRHDI are suitable for all flanges, including RF, FF, LMF, and LTG. Graphite cannot be used with oxidizing fluids.

Tech Data

Planigraph™ LGRHDI

| Planigraph™ LGRHDI | | |
|------------------------------------|--------------------|---------|
| Graphite density | gr/cm ³ | 1.0 |
| Carbon Content | % | ≥ 98.0 |
| Ash Content | % | ≤ 2.0 |
| Sulphur Content | ppm | ≤ 1000 |
| Halogen Content | ppm | ≤ 200 |
| Reinforcing steel sheet | AISI | 316L |
| Thickness steel sheet | mm | 0.05 |
| Tensile Strength | MPa | ≥ 4.0 |
| Compressibility | % | 25 - 35 |
| Recovery | % | > 15 |
| Relaxation stress DIN 52913 | N/mm ² | > 45 |
| Temperature max with steam | °C | 550 |
| Temperature max with weak oxidants | °C | 450 |
| Temperature min cryo | °C | -196 |
| Maximum assembly load RT | N/mm ² | 200 |
| Maximum operating pressure | bar | 200 |

- Never use the product at its maximum rated temperature and pressure. Consult the manufacturer for further information.
- With weakly oxidizing agents and hot air, the temperature must be limited to 450 °C.
- Flexible graphite and carbon yarns shall not be used with oxidizing fluids.
- With steam and non-oxidizing fluids, the temperature must be limited to 550°C.
- The dimensional tolerances of the gasketing sheets are: W and L ±3.0%, H ±10.0%.

| | | |
|-----------|------------------------------|-------------------|
| Size | 1000 x 1000 - 1500 x 1500 mm | 40"x40" - 60"x60" |
| Thickness | 1.0 ÷ 3.0 mm | 1/32" ÷ 1/8" |



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Planigraph™ LGRHDI

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



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