PLANIGRAPH™ LGRF

Composition

- High-purity expanded mineral graphite Industrial Grade
- Tanged sheet SS316L

Characteristics

The expanded mineral graphite of LGRF Planigraph™ meets the requirements of the latest update of the EU directive 2011/65/EC (RoHS). 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

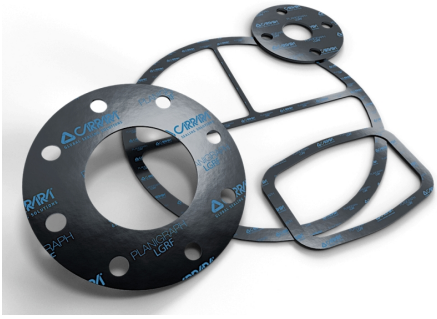
Planigraph™ LGRF (typical values for 1.5 mm thickness)

Graphite density	gr/cm3	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	0.10
Tensile Strenght	MPa	≥ 4.0
Compressibility	%	35 - 55
Recovery	%	≥ 9.0
Relaxation stress 16h, 300°C, initial stress 50 N/mm2	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	140
Maximum operating pressure	bar	100

- 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.
- 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	1.000 x 1.000 mmxmm 1.500 x 1.500 mmxmm	40” x 40” 60” x 60”
Thickness	1.0 ÷ 3.0 mm	3/64” ÷ 1/8”

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.



Planigraph™ LGRF

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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