



# PLANIGRAPH™ PREMIUM LGRFP

## Composition

- High-purity expanded mineral graphite Premium Grade with corrosion inhibitor and oxidation retardant
- Tanged sheet SS316L

## Characteristics

The expanded mineral graphite of Planigraph™ Premium LGRFP 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 LGRFP

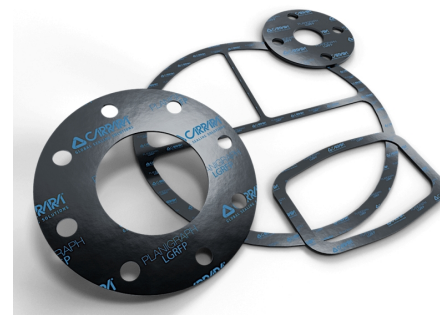
Graphite density	gr/cm3	1.0
Carbon Content	%	≥ 99.0
Ash Content	%	< 1.0
Sulphur Content (before inhibitors addition)	ppm	≤ 100
Halogen Content (after inhibitors addition)	ppm	≤ 100
Thermal Weight Loss 670°C/h	%	≤ 4.0
Inhibitor of oxidation and corrosion	-	Yes
Reinforcing steel sheet	AISI	316L
Thickness steel sheet	mm	0.05
Tensile Strength	MPa	≥ 5.0
Compressibility	%	35 - 55
Recovery	%	≥ 9.0
Relaxation stress 16h, 300°C, initial stress 50 N/mm2	N/mm2	> 45
Maximum assembly load RT	N/mm2	140
Temperature range service	°C	-200 / 550
Maximum operating pressure	bar	100

- 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.
- 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	1.50 ÷ 3.0	1/16" ÷ 1/8"



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## Planigraph™ Premium LGRFP

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  $\geq 4$ . 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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