

PLANIGRAPH™ LGRF

Composition

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

Characteristics

The expanded mineral graphite of LGRF Planigraph $^{\text{TM}}$ 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 to the maximum temperature and pressure associated. Consult the manufacturer for further information
- \bullet With weakly oxidizing agents and hot air the temperature must be limited to 450 $^{\circ}$ C
- Graphite and carbon cannot be used with oxidizing fluids
- With steam and non-oxidizing fluids, the temperature must be limited to 550°C
- $\bullet~$ The dimensional tolerances of the gasketing sheets are: W and L \pm 3,0%, H \pm 10,0%

Size	1.000 x 1.000 mmxmm 1.500 x 1.500 mmxmm	40" × 40" 60" × 60"
Thickness	1.0 ÷ 3.0 mm	3/64" ÷ 1/8"



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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 $\bf De$ and $\bf Di$ are the diameters of the area actually compressed between the flanges and $\bf thk$ 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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