



# PLANIGRAPH™ LGR

## Composition

Flexible graphite C > 98,00% with smooth stainless steel core.

## Characteristics

The LGR graphite gaskets offer an excellent performances for sealing the bonnet flanges of the valves and for sealing the heat exchangers. Improved permeability resistance can be achieved with the inner eyelet. For a perfect seal with this gasket it is recommended to use a thickness of 1.5 mm.

## Applications

Graphite gaskets for bonnet flanges and heat exchangers. The graphite doesn't work with oxidizing fluids.

## Tech Data

Planigraph™ LGR

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	0.05
Tensile Strength	MPa	≥ 4.0
Compressibility	%	40 - 50
Recovery	%	> 7
Relaxation stress 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	60
Maximum operating pressure	bar	75

- 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	1.000 x 1.000 1.500 x 1.500	40" x 40" 60" x 60"
Thickness	0.5 ÷ 3.0	1/64" ÷ 1/8"



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## Planigraph™ LGR

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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