



# PLANIGRAPH™ LGRHDI

## Composition

The graphite gasketing sheets LGRHDI are the greatest material to make gaskets for high temperature and high pressure services for RF, FF, LMF and LTG piping and heat exchangers flanges. LGRHDI shows a great value of relaxation with an excellent mechanical strength.

## Characteristics

- Pure expanded graphite
- Multilayers SS316L smooth reinforcement 0.05 mm thickness

## Applications

Graphite gaskets for flanges RF, FF, LMF and LTG. The graphite is unsuitable for sealing oxidizing fluids.

## Tech Data

### Planigraph™ LGRHDI

Graphite density	gr/cm <sup>3</sup>	1.0
Carbon Content	%	> 98.0
Ash Content	%	< 2.0
Material of insert	AISI	316L
Thickness of insert	mm	0.05
Compressibility	%	25 - 35
Recovery	%	> 15
Gas Permeability DIN 3535	cm <sup>3</sup> /min	< 0.6
Relaxation stress DIN 52913	N/mm <sup>2</sup>	> 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 <sup>2</sup>	200
Maximum operating pressure	bar	200

- With steam and non-oxidizing fluids, the temperature must be limited to 550°C
- Never use the product to the maximum temperature and pressure associated. Consult the manufacturer for further information
- With weakly oxidizing agents and hot air the temperature must be limited to 450 °C
- Graphite and carbon cannot be used with oxidizing fluids

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



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The flexible graphite gaskets style LGRHDI are reinforced with multiple metal layers and are intended for high pressure use although they can be successfully installed in all applications. The maximum pressure for using these gaskets is strongly correlated to the gasket sealing surface. It is always suggested to calculate the ratio between [De-Di] and the thickness of the gasket, where De and Di refer to the effective diameters of the parts of the gasket compressed by the flanges. The ratio must be at least 4 and in this case the maximum compression allowed on the gasket is 100 MPa. In any case the maximum load allowed on the gasket is 140 Mpa. The maximum operating pressure pointed in the grid is only for reference because the maximum assembly load requirements must always be met in correlation to the temperature and the effective active sealing surface (EN 1591-2: 2020). The dimensionals tolerances are +/-5.0%.



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