



# PLANIGRAPH™ PREMIUM LGRHDIP

## Composition

- High-purity expanded mineral graphite Premium Grade with corrosion inhibitor and oxidation retardant
- Smooth sheet SS316L th. 0.05 mm

## Characteristics

The expanded mineral graphite of Planigraph™ Premium LGRHDIP 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 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.

## Tech Data

Planigraph™ Premium LGRHDIP		
Graphite density	gr/cm <sup>3</sup>	1.0
Carbon Content	%	≥ 99.0
Ash Content	%	< 1.0
Sulphur Content	ppm	≤ 100
Halogen Content	ppm	≤ 100
Inhibitor of oxidation and corrosion	-	Yes
Thermal Weight Loss 670°C/h	%	≤ 4.0
Tensile Strength	MPa	≥ 4.0
Material of insert	AISI	316L
Thickness of insert	mm	0.05
Compression ratio	%	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

- 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	40"x40"
Thickness	1.0 ± 3.0	1/32 ± 1/8



The information in this publication and otherwise provided to users is based on experience and is provided to the best of our current knowledge. Due to many factors which are beyond our knowledge and control affecting the use of the products, no warranties are given or are to be held implied with respect to such information. The operating limits shown in this publication do not constitute a statement that these values can be applied simultaneously. Do not use the product at the associated maximum temperature and pressure values. The maximum temperature can be sustained for short exposures in particular conditions. Specifications are subject to change without notice.



## Planigraph™ Premium LGRHDIP

The Planigraph™ sales program includes the following items Premium grade and Industrial Grade:

- LGP and LG without insert
- LGRP and LGR with single smooth insert
- LGRFP and LGRF with single or multiple tanged inserts
- LGRHDIP and LGRHDI with multiple smooth inserts

The maximum allowable load on the expanded graphite gasket depends on the type and number of metallic inserts and is strongly correlated with the effective sealing surface area of the gasket. It is always advisable to check the ratio between [De-Di], where De and Di refer to the diameters of the parts of the gasket effectively engaged by the flange compression, and the gasket thickness. The ratio should be at least 4. On WN RF flanges, gaskets can be applied up to the pressure class 300 psi. Please refer to the published technical data sheets for the application limits of the Planigraph™ line products.



**Carrara S.p.A.**  
Via Provinciale 1/E - 25030 Adro - BS - Italia  
tel. +39 030 7451121 / fax +39 030 7451130  
[www.carrara.it](http://www.carrara.it) - [info@carrara.it](mailto:info@carrara.it)