



# GRAPHITE GASKETING SHEET

## Composition

High-purity expanded mineral graphite Industrial Grade with tanged or smooth SS316L sheet if required by the style.

## Characteristics

The expanded mineral graphite Planigraph™ meets the requirements of the latest update of the EU directive 2011/65/EC (RoHS). 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. 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™ Graphite Gasketing Sheet					
Feature	UM	LG	LGR	LGRF	LGRHDI
Graphite density	gr/cm <sup>3</sup>	1.0	1.0	1.0	1.0
Carbon Content	%	≥ 98.0	≥ 98.0	≥ 98.0	≥ 98.0
Ash Content	%	< 2.0	< 2.0	< 2.0	< 2.0
Sulphur Content	ppm	≤ 1000	≤ 1000	≤ 1000	≤ 1000
Halogen Content	ppm	≤ 200	≤ 200	≤ 200	≤ 200
Tensile Strength	MPa	≥ 4.0	≥ 4.0	≥ 4.0	≥ 4.0
Compression ratio	%	40 - 50	40 - 50	35 - 55	25 - 35
Recovery	%	> 7	> 7	≥ 9.0	> 15
Relaxation stress 16h, 300°C, initial stress 50 N/mm <sup>2</sup>	N/mm <sup>2</sup>	> 45	> 45	> 45	> 45
Maximum assembly load RT	N/mm <sup>2</sup>	40	60	140	200
Temperature range service	°C	-200 / 550	-200 / 550	-200 / 550	-200 / 550
Maximum operating pressure	bar	40	75	100	200

- With weakly oxidizing agents and hot air the temperature must be limited to 450 ° C
- Graphite and carbon cannot be used with oxidizing fluids
- Do not use the product at maximum temperature values or under pressures higher than those typical of flue gases. Consult the manufacturer for further information.
- Other gasketing sheet dimensions and thicknesses are available on request
- 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 ± 5,0%, H ± 10,0%

Size	1.000 x 1.000 1.500 x 1.500	40" x 40" 60" x 60"
Thickness	1.0 ÷ 3.0	1/32" ÷ 1/8"



## Graphite Gasketing Sheet

- 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 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.



The information in this publication, as well as any additional information provided to users, is based on experience and is shared to the best of our current knowledge. However, due to numerous factors beyond our knowledge and control that may affect the use of these products, no warranties are provided or implied regarding this information. The operating limits presented in this publication do not imply that these values can be applied simultaneously. Do not use the product at the maximum temperature and pressure values simultaneously. The maximum temperature is suitable only for short-term exposure under specific conditions. Specifications are subject to change without prior notice. The picture in the DS may not accurately depict the exact color and/or markings of the product.

**CARRARA**  
GLOBAL SEALING SOLUTIONS

**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)