

# PLANIGRAPH™ PREMIUM LGRP

### **Composition**

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

#### **Characteristics**

The expanded mineral graphite of Planigraph $^{\text{TM}}$  Premium LGRP 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.

## **Applications**

Expanded mineral graphite is also known for its chemical resistance, making it suitable for applications involving almost all fluids except for oxidants.

#### **Tech Data**

Planigraph™ Premium LGRP				
Graphite density	gr/cm3	>1.0		
Carbon Content	%	≥ 99.0		
Ash Content	%	< 1.0		
Sulphur Content	ppm	≤ 100		
Chloride Content	ppm	≤25		
Fluoride Content	ppm	≤25		
Halogen Content	ppm	≤100		
Inhibitor of oxidation and corrosion	-	Yes		
Thermal Weight Loss 670°C/h	%	≤ 4.0		
Reinforcing steel sheet	AISI	316L		
Thickness steel sheet	mm	0.05		
Tensile Strenght	MPa	≥ 4.0		
Compression ratio	%	40 - 50		
Recovery	%	> 12		
Gas Permeability DIN 3535-6	mg/m/s	< 0.1		
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		



With weakly oxidizing agents and hot air the temperature must be limited to 450 ° C

Graphite and carbon cannot be used with oxidizing fluids

Other gasketing sheet dimensions and thicknesses are available on request

With steam and non-oxidizing fluids, the temperature must be limited to 550°C

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	The dimensional tolerances of the gasketing sheets are: W and L $\pm$ 3.0%, H $\pm$ 10.0%

Size	1.500 x 1.500	60" x 60"
Thickness	1,5 ÷ 3.0	1/16" ÷ 1/8"



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## Planigraph™ Premium LGRP

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.



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