



PLANIGRAPH™ METALBOND

Composition

Expanded graphite C> 98.00% with tanged foil inserted and inner steel eyelet. Since the graphite does not come into direct contact with the fluid the mechanical properties of the seal remain unchanged over time, guaranteeing a longer joint operating life and a drastic reduction of fugitive emissions with greater safety.

Characteristics

Metalbond is the graphite gasket with inner eyelet that increases the effectiveness of the seal. It is the solution that allows a minimum diffusion of the fluid through the most stressed part of the gasket. At the same time it is an economical and long service gasket because the eyelet prevents the erosion of the inner edge of the seal and avoid the permeation of the fluid through the graphite.

Applications

Graphite gaskets for flanges. The graphite doesn't work with oxidizing fluids.

Tech Data

Planigraph™ Metalbond 2.00 mm th.

Graphite density	gr/cm3	1.0
Carbon Content	%	> 98.0
Ash Content	%	< 2.0
Material of insert	AISI	316L
Thickness of insert	mm	0.10
Compressibility	%	35 - 45
Recovery	%	15 - 20
Gas Permeability DIN 3535	cm3/min	< 0.6
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	120

- 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

Thickness	1,5 ÷ 3,0 mm	1/16" ÷ 1/8"
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The operating pressure of the gasket depends on the sealing surface. It is always advisable to verify the ratio between $[De-Di]$ and the gasket thickness $th.$, where **De** and **Di** represent the outer and inner diameters of the gasket, respectively, between the flange surfaces. This ratio must be at least 4; in this case, the maximum allowable compression on the gasket is 120 MPa. On WN RF flanges, **Metalbond™** gaskets are applicable up to a pressure class of 300 psi. **Metalbond™** gaskets are manufactured from **Planigraph™ LGRF** sheet, but can also be produced with **LGR** sheets (with smooth reinforcement) and **LGRHDI** sheets (with multilayer reinforcement). A version of **Metalbond™** with an external protection ring is also available.



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.



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