



# METALBOND™

## Composition

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.

## Characteristics

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.

## Applications

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

## Tech Data

METALBOND™			
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

Size	Disponibile in tutti i sizes standard o customizzati	Available in all size
Thickness	da 1,5 a 3,0 mm	from 1/16



## Metalbond™

Metalbond™ seals great gaskets because the steel ring prevents the erosion of the inner edge of the seal. The pressure for using the gasket is strongly correlated to the sealing surface and it is always better to check the ratio between [De-Di] and the thickness of the gasket where De and Di refer to the diameters of the parts of the gasket under the compression of the flanges. The ratio must be at least 4 and in this case the maximum compression allowed on the gasket is 70 MPa. The maximum load allowed on the gasket is 120 Mpa. For sealing the WN RF flanges Metalbond™ gaskets are applicable up to the pressure class 300 psi. Metalbond™ is made from LGRF Planigraph™ but can also be made with LGR with smooth reinforcement and LGRHDI with multi layers reinforcement. Metalbond™ is also available in the style with external protection ring.



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.

**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)