



# PLANIGRAPH V48ZN OXYGEN BAM

## Composition

The PLANIGRAPH V48ZN OXYGEN BAM graphite rings are composed of pure expanded graphite supported by nickel tape, giving them optimal resistance and extended durability in the corrosive environment of liquid and gaseous oxygen.

## Characteristics

These PLANIGRAPH V48ZN OXYGEN BAM graphite rings, certified according to the BAM standard for use with liquid and gaseous oxygen, stand out for their robustness and reliability. Made from pure expanded graphite supported by nickel tape, they offer exceptional resistance to corrosion and the high temperatures typical of oxygen-rich environments. Their design aims to ensure optimal sealing for stem and ball valve seats, ensuring safe and leak-free operation under critical conditions. Compatible with GR80SGR OXYGEN BAM braided rings and PLANIGRAPH V48Z OXYGEN BAM rings, these graphite rings are a reliable choice for industrial applications that require high performance and durability.

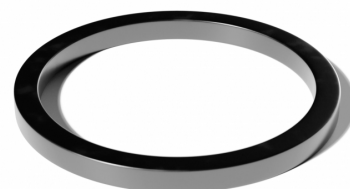
## Applications

The PLANIGRAPH V48ZN OXYGEN BAM graphite rings are primarily used in systems handling liquid and gaseous oxygen, such as industrial valves and related devices, ensuring reliable and long-lasting sealing.

## Tech Data

Maximum Temperature C°	Maximum Oxygen Pressure bar
up to 60	430
> 60 to 280	250

- Never use the product to the maximum temperature and pressure associated. Consult the manufacturer for further information
- The dimensional tolerances of the molded products refer to the Carrara Spa standard, unless otherwise agreed.



## PLANIGRAPH V48ZN OXYGEN BAM

The PLANIGRAPH V48ZN OXYGEN BAM graphite rings are BAM-certified for use with both liquid and gaseous oxygen, providing a robust seal for stem and ball valve seats. Crafted from pure expanded graphite supported by nickel tape, they ensure reliability and safety in high-pressure and high-temperature systems.

**Report**  
on Testing a Nonmetallic Material for Reactivity with Oxygen

**Reference Number** 2-19492014 E

**Copy** 1. Copy of 2 Copies

**Customer** CARRARA S.p.A.  
Via Provinciale 1/E  
25030 Adro (BS)  
Italia

**Order Date** August 4, 2014

**Reference** Order No.: 1411296

**Receipt of Order** August 11, 2014

**Test Samples** Die-formed flexible graphite ring Planigraph V48ZN OXY, undisclosed batch, for use as a sealing material in piping, valves and fittings or other components for gaseous oxygen service at temperatures up to 280 °C and for liquid oxygen service.  
BAM-Order No.: 2-1952 210

**Receipt of Samples** August 7, 2014

**Test Date** August 22, 2014 to January 30, 2015

**Test Location** BAM - Working Group "Safe Handling of Oxygen"; building no. 41, room no. 073 and no. 120

**Test Procedure or Requirement According to** DIN EN 1797-2002-02  
"Cryogenic Vessels - Gas/Material Compatibility"  
ISO 21015:2004-07  
"Cryogenic Vessels - Gas/Material Compatibility"  
Annex of pamphlet M 034-1 (BGI 617-1)  
"List of nonmetallic materials compatible with oxygen by BAM Federal Institute for Material Research and Testing", by Deutscher Wissenschaftlicher Beirat für chemische Industrie, Edition: March 2014.  
TRGS 407 Technical Rules for Hazardous Substances "Tätigkeiten mit Gasen - Gefährdungsbeurteilung" chapter 2 "Informationsermittlung und Gefährdungsbeurteilung" and chapter 4 "Schutzmaßnahmen bei Tätigkeiten mit Gasen" Edition: June 2013

**TEST REPORT**

All pressures of this report are excess pressures.  
This test report consists of page 1 to 8 and annex 1 to 4.  
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In case a German version of the test report is available, exclusively the German version is binding.

HS Safety in technology and chemistry



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**CARRARA**  
GLOBAL SEALING SOLUTIONS

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