



# PLANIGRAPH V48ZN OXYGEN BAM

## Composition

The Planigraph V48ZN OXYGEN BAM graphite gaskets in 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 gaskets in 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.

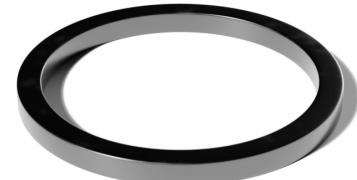
## Applications

The Planigraph V48ZN OXYGEN BAM graphite gaskets in 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 at its maximum rated temperature and pressure. Consult the manufacturer for further information.
- The dimensional tolerances of the molded products refer to the Carrara S.p.A. standard, unless otherwise agreed.



## Planigraph V48ZN OXYGEN BAM

The Planigraph V48ZN OXYGEN BAM graphite gaskets in 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.

**BAM**  
Bundesamt für  
Materialforschung  
und -prüfung

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

**Reference Number** 2-1948/2014 E

**Copy** 1. Copy of 2 Copies

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

**Order Date** August 1, 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 oxygen service, for use as a sealing material for gaseous oxygen service at temperatures up to 280 °C and for liquid oxygen service. BAM-Order No.: 2.1952.219

**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. 129

**Test Procedure or Requirements** DIN EN 1787-2002-01 - "Gas/Material Compatibility"  
ISO 21010:2004-07 - "Gas/Material Compatibility"  
Annex of pamphlet M03-04-1 (BG 617-1)  
"List of materials compatible with oxygen by BAM Federal Institute for Materials Research and Testing", by Beauftragtes Sachverständigenrat Rohstoffe und chemische Industrie, Edition 2013

**Test Results** TRGS 407 Technical Rules for Hazardous Substances "Stoffe mit Gasen - Gefahrenabschätzung" chapter 3 "Gefahrenabschätzung" and  
Gefahrenabschätzung" and  
chapter 4 "Gefahrenabschätzung bei Tätigkeiten mit Gasen"  
Edition: June 2013

All pressures of this report are excess pressures.  
This test report consists of page 1 to 8 and annex 1 to 4.  
This test report may only be purchased in full and without any addenda. A separate permission in writing must be obtained for the use of any addenda or parts of the particular test report. The test results remain exclusively the tested materials.  
It is a general condition of the test report is available exclusively for the German market.  
© BAM 2014

**TEST REPORT**



The information provided in this publication, as well as that supplied to users in other forms, is based on our experience and communicated according to the best knowledge available. However, since numerous factors beyond our knowledge and control may influence the use of the products, no warranty, explicit or implicit, is given regarding such content. The operating limits indicated do not constitute confirmation that these values can be applied simultaneously. Avoid using the product at the maximum temperature and pressure limits. The maximum temperature is sustainable only for short periods under specific conditions. Specifications may be changed without notice. The images in the DS may not accurately represent the product's color and/or marking.

**CARRARA**  
GLOBAL SEALING SOLUTIONS

**Carrara S.p.A.**

Via Provinciale 1/E - 25030 Adro - BS - Italia  
tel. +39 030 7451121 [www.carrara.it](http://www.carrara.it) [info@carrara.it](mailto:info@carrara.it)