



PLANIFLON PT2105

Composition

Middle rings and Top & Bottom rings: Modified PTFE

Characteristics

Key characteristics of the **Planiflon PT2105** include a specific gravity of 2.15 g/cm³, tensile strength of at least 28 N/mm², and elongation at break of at least 350%. The tensile modulus is at least 600 N/mm². Shrinkage is 3%, while deformation under load is 15%. The material is classified as V-0 for flammability and has a dielectric strength of 2.5 kV/mil. The service temperature range (general service) is from -200°C to 260°C. It is BAM approved for oxygen service.

Applications

The **Planiflon PT2105** is a Chevron-configured seals particularly suitable for applications requiring reliable sealing of stems and seats of industrial valves in sectors such as chemical, petroleum, and pharmaceutical. Suitable for high-pressure and extreme temperature applications.

Tech Data

Properties	Unit	Value
Specific gravity	g/cm ³	2,15
Tensile strenght	N/mm ²	≥ 28
Elongation	%	≥ 350
Tensile modulus	N/mm ²	≥ 600
Shrinkage	%	3
Compressive strength at 1% deformation	N/mm ²	4-5
Deformation under load (24h 15,0 N/mm ² 23°C)	%	15
Deformation under load (100h 15,0 N/mm ² 23°C)	%	17
Deformation under load (Permanent 15,0 N/mm ² 23°C)	%	11
Flammability		V-0
Melt point (initial)	°C	342 ± 10
Melt point (second)	°C	327 ± 10
Dielectric Strenght	kV/mil	2.5
Service Temperature Range (general service)	°C	-200 ÷ 260
BAM Approved for Oxygen Service	[°C ;Bar]	Suitable [60; 30] [200 ; 20]

- Never use the product at its maximum rated temperature and pressure. Consult the manufacturer for further information.
- The data reported in the technical sheet represent the average values of the product and may differ from those of the specific batch delivered.



PLANIFLON PT2105

The **Planiflon PT2105** is a **high-quality PTFE** for stem and seat sealing of industrial valves. The material exhibits high chemical resistance (except for alkalis and hydrofluoric acid) and is suitable for a wide range of pressure applications.

TEST REPORT
on Testing a Nonmetallic Material for Reactivity with Oxygen

Reference Number: 17034693 E
Our Reference: 02-3432
Copy: 1, copy of 2 copies
Customer: Carrara S.p.A.
Via Provinciale 1/E
25030 Adro (BS)
ITALY
Date of Request: June 19, 2017
Your Reference: PO No. 170615
Receipt of Signed Contract: August 8, 2017
Test Samples: PLANIFLON PT2105,
batch 170256
Receipt of Samples: June 27, 2017
Test Date: July 28, 2017 to September 15, 2017
Test Location: BAM - Division 2.1 „Gases, Gas Plants“,
building no. 41

Test Procedure or Requirement According to: DIN EN 1257 und ISO 21070
“Tropfen-Versuch - Gas/Material Kompatibilität“
Annex of code of practice BS 684 - BS 684:07-0
(in the current version)
“List of nonmetallic materials compatible with hydrogen“ by German Social Accident Insurance Institution for the steel industry and chemical industry, TRGS 400 Technical Rules for Hazardous Substances
“Transport and Carriage - Gefahrgutvorschriften“
chapter 3 “Hochdruckversandung und Gefahrguttransport“ and
chapter 4 “Schifftransport“ and “Eingebundene Container“

All pressures of this report are excess pressures.
This test report consists of pages 1 to 9 and annex 1 to 4.
This test report may only be published in full wording and without any additions. A reproducible written consent shall be obtained from BAM beforehand for any intended reproduction or the publication of any extracts. The content of the test report refers exclusively to the object/materials tested.
The content appears in English, French, and German. The content is issued exclusively.
2015-08 / 2015-09-07
Erstellt in Techni und Chemi

BAM
Bundesanstalt für
Materialprüfung
und -prüfung
10285 Berlin, Germany
P +49 30 8104-0
F +49 30 8104-7 2332

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 exactly represent the product, its color and/or marking.

CARRARI
GLOBAL SEALING SOLUTIONS

Carrara S.p.A.,
Via Provinciale 1/E - 25030 Adro - BS - Italia
tel. +39 030 7451121 carrara.it - info@carrara.it