



# 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/cm<sup>3</sup>, tensile strength of at least 28 N/mm<sup>2</sup>, and elongation at break of at least 350%. The tensile modulus is at least 600 N/mm<sup>2</sup>. 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 <sup>3</sup>	2,15
Tensile strenght	N/mm <sup>2</sup>	≥ 28
Elongation	%	≥ 350
Tensile modulus	N/mm <sup>2</sup>	≥ 600
Shrinkage	%	3
Compressive strength at 1% deformation	N/mm <sup>2</sup>	4-5
Deformation under load (24h 15,0 N/mm <sup>2</sup> 23°C)	%	15
Deformation under load (100h 15,0 N/mm <sup>2</sup> 23°C)	%	17
Deformation under load (Permanent 15,0 N/mm <sup>2</sup> 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:** 17034631 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 21010  
"Tropfen-Versuch - Gas/Material-Kompatibilität",  
Annex of code of practice BS 684 - (BSI 617: 0)  
(in the current version)  
"List of nonmetallic materials compatible with hydrogen" by German Social  
Accident Insurance Institution for the non-metallic and chemical industry,  
TRGS 400 Technical Rules for Hazardous Substances  
"Transport and Carriage - Gefahrgutvorschriften"  
chapter 3 "Hazardous Substances and Gefahrgutvorschriften" and  
chapter 4 "Schadstoffvorschriften und Gefahrgutvorschriften"

All pressures of this report are excess pressures.  
This test report consists of pages 1 to 9 and annex 1 to 4.  
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**TEST REPORT**



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**CARRARI**  
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