

Application purpose and characteristics

Suitable for parts with sliding functions and high load in damp, wet, or chemically aggressive environments, Chemical and pharmaceutical industries, food processing industr

PTFE Compound in addition to an increased load capacity and wear resistance, suitable for direct contact with foodstuff. The chemical resistance compared to PTFE, virgin is not significant limited

Material name, short description	PTFE
Material name, based on technical standards	Polytetrafluorethylene
Density	2.085 g/cm ³
Color	black
Compound code	PTFE 225.011-01
Compound	PTFE + 25% Carbon Coke

Mechanical properties

Tensile strength	≥ 13 N/mm ² ASTM D 4745
Elongation at break	≥ 60 % ASTM D 4745
Residual deformation after 24h	≤ 4 % ASTM D 621 23 °C
Deformation under load 1	≤ 7 % ASTM D 621 23 °C
Hardness nominal value	62 Shore D
Ball indentation hardness	≥ 30 N/mm ² ASTM D 785
Friction coefficient (dynamic)	0.12 to 0.15 ASTM D 1894
Coefficient of sliding friction	0.14 - 0.16 ASTM D 1894
Sliding wear	35 (cm ³ min 10-6)/(Kg.m.h)

Thermal attributes

Min. operating temperature	-100 °C
Max. operating temperature long term	250 °C
Coefficient of linear thermal expansion 1	7 - 12.5 * 10 ⁻⁵ /°C ASTM D 696 25 - 100 °C
Thermal conductivity	0.59 W/(m·K) ASTM C 177

Electrical attributes

Surface resistivity	10 ³ Ω ASTM D 257
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Other attributes

Water absorption	0.03 % ASTM D 570
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Approvals / Compliance

Food & Beverage	FDA CFR 21 - 177.1550 "Perfluorocarbon resins"
	D.M. 21/03/1973
	EC No. 1935/2004 incl. last amendments



EC No.1935:2004



In compliance with **RoHS** and **REACH** directives.

This information is based on our available data. These values are measured on standard test specimens and are within the normal tolerance range of material properties and do not represent guaranteed property values. Therefore they shall not be used for specification purposes. The customer is solely responsible for quality and suitability of material for his application. He has to test usage and processing prior to use. Angst+Pfister makes no guarantees for the suitability of the material for any given application and assumes no obligation or liability in connection with the information provided above.