

## Application purpose and characteristics

Suitable for contact with foodstuffs, meets FDA regulation and European regulation EC 1935/2004.

High maximum service temperature and excellent resistance to low temperatures, exceptional resistance to chemicals and hydrolysis, good electrical insulation properties, exceptional dielectric properties

Material name, short description	PTFE
Material name, based on technical standards	Polytetrafluorethylene
Density	2.16 g/cm <sup>3</sup>
Color	natural (white)
Compound code	PTFE 00.011-00

## Mechanical properties

Tensile strength	≥ 20 N/mm <sup>2</sup> ASTM D 4894
Elongation at rupture	≥ 200 % ASTM D 4894
Compressive strength 1	≥ 4 N/mm <sup>2</sup> ASTM D 695 1% deformation
Residual deformation after 24h	≤ 8 % ASTM D 621 after 24 h relaxation at 23 °C
Deformation under load 1	≤ 13 % ASTM D 621 140 Kg/cm <sup>2</sup> for 24 hrs. at 23°C
Hardness nominal value	54 Shore D
Ball indentation hardness	≥ 23 N/mm <sup>2</sup> ASTM D 785
Friction coefficient (static)	0.08 to 0.1 ASTM D 1894

## Thermal attributes

Min. operating temperature	-200 °C
Max. operating temperature long term	250 °C
Max. operating temperature short term	280 °C
Coefficient of linear thermal expansion 1	12 - 15 * 10 <sup>-5</sup> /°C ASTM D 696 from 25 °C to 100 °C
Thermal conductivity	0.34 W/(m·K) ASTM C 177

## Electrical attributes

Dielectric strength 1	≥ 30 kV/mm ASTM D 149
Surface resistivity	10 <sup>17</sup> Ω ASTM D 257
Volume resistivity	10 <sup>18</sup> Ω*cm ASTM D 257

## Other attributes

Water absorption	0.01 % ASTM D 570
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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.

Approvals / Compliance

Drinking water	KTW-BWGL, Annex A DIN 16421
	ÖNORM (B 5014-1:2016) for drinking water for cold and hot water up to 85°C
	WRAS (BS 6920-1:2000 specification) for cold and hot water up to 85°C
Fire protection	UL 94 V0
Food & Beverage	FDA CFR 21 - 177.1550 "Perfluorocarbon resins"
	D.M. 21/03/1973
	EC No. 1935/2004 incl. last amendments ....
	Regulation EU 10/2011



EC No.1935:2004



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