

**APSOplast® PTFE HP 115 pale yellow**
**Engineering Plastic Technology  
Technical Data Sheet**
**Application purpose and characteristics**

Ideal for non-lubricated sliding elements with soft mating partners such as stainless steel.  
Extremely low coefficient of friction and high wear resistance, high compressive strength, high flexibility and tensile strength, excellent dielectrical properties.

**Product description**

Material name, long description	Polytetrafluorethylene
Material name, short description	PTFE
Compound	PTFE + polymer
Material Code	PTFE HP115.013-00
Density	1.97 g/cm <sup>3</sup>
Color	pale yellow

**Mechanical properties**

Tensile strength	Test value: 14 MPa Test norm: ISO 527-1 Test parameter: Cross direction, test speed 50 mm/min
Elongation at break	Test value: 190 % Test norm: ISO 527-1 Test parameter: Cross direction , test speed 50 mm/min
Residual Deformation After 24 h	Test value: 6 % Test norm: ASTM D 621
Deformation under load	Test value: 8 % Test norm: ASTM D 621 Test parameter: P=13.7 N/mm <sup>2</sup> , 24 h, N/mm <sup>2</sup>
Compressive strength	Test value: 6.5 N/mm <sup>2</sup> Test norm: ASTM D 695 Test parameter: 1% deformation
Shore hardness	Test value: 55 Shore D Test norm: ISO 868
Static friction coefficient	Test value: 0.05 - 0.15 Test norm: ASTM D 3702
Sliding wear	Test value: 0.010 - 0.020 µm/h Test norm: ASTM D 3702 Test parameter: PV=0,7 N/mm <sup>2</sup> * m/s
Dynamic friction coefficient	Test value: 0.01 - 0.20 Test norm: ASTM D 3702 Test parameter: PV=0,7 N/mm <sup>2</sup> * m/s

**Thermal properties**

Min. operating temperature	Test value: -200 °C
Max. operating temperature long term	Test value: 280 °C
Thermal expansion	Test value: $9 \cdot 10^{-5}/^{\circ}\text{C}$ Test norm: ASTM D 696 Test parameter: 25 – 95°C