APSOplast® PTFE HP115

Angst+Pfister

Engineering plastics technology
Technical Data Sheet

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

Material name, short description	PTFE
Material name, based on technical standards	Polytetrafluorethylene
Density	1.97 g/cm³
Color	pale yellow
Compound code	PTFE HP115.013-00
Compound	PTFE + polymer

Mechanical properties

Tensile strength	14 N/mm² ISO 527-1 Cross direction, test speed 50 mm/min
Elongation at break	190 % ISO 527-1 Cross direction , test speed 50 mm/min
Compressive strength 1	6.5 N/mm² ASTM D 695 1% deformation
Resiual deformation after 24h	6 % ASTM D 621
Deformation under load 1	8 % ASTM D 621 P=13.7 N/mm2, 24 h, N/mm²
Hardness test value	55 Shore D
Friction coefficient (static)	0.05 to 0.15 ASTM D 3702
Friction coefficient (dynamic)	0.14 to 0.16 ASTM D 3702 PV=0,7 N/mm2 * m/s
Sliding wear	0.010 - 0.020 µm/h ASTM D 3702 PV=0,7 N/mm2 * m/s

Thermal attributes

Min. operating temperature	-200 °C
Max. operating temperature long term	280 °C
Coefficient of linear thermal expansion 1	9 * 10⁻⁵/°C ASTM D 696 25 – 95°C

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.