

AlpFlon 55™

Special features and benefits towards conventional PTFE

- Excellent weldability
- Substantially lower deformation under load
- Denser polymer structure with reduced void content
- Lower gas permeability
- Low friction behaviour
- Very good electrical and mechanical properties
- Same high thermal stability as classic PTFE

Field of application

AlpFlon 55™ opens up new design possibilities, processing options and applications. It is ideal for applications where end users specify particular high standards of safety and reliability, e.g. in the seals and gaskets sector, plant and equipment construction, mechanical engineering, the semiconductor industry for high-purity chemicals, etc.

Product description

AlpFlon 55™ is a modified polytetrafluoroethylene (PTFE) that maintains the exceptional chemical and heat resistance properties of conventional PTFE, but has significantly lower melt viscosity giving better particle fusion during sintering and smoother surfaces. The very small particle size is preferred for moulded parts requiring very good mechanical and electrical properties, a denser polymer structure, improved gel stability and flex life characteristics.

Delivery form

THICKNESS	From 0,5 until 4,00 mm
WIDTH	Until max. 1500 mm

Product information and TECHNICAL DATA SHEET



ALPTEC Technische Kunststoffe GmbH
Am Holzfeld 1, 83254 Breitbrunn

AlpFlon 55™

	Properties	Test method	Unit	Alpflon 55™
Mechanical	Density	ASTM D4894/D4895	g/cm ³	2,16
	Tensile stress at break	ASTM D4894	N/mm ²	40
	Elongation at break	ASTM D4894/D4895	%	590
	Ball indentation hardness	DIN ISO 2039 Part 1	N/mm ²	28
	Shore hardness D	DIN 53 505	-	59
	Deformation under load (15 N/mm ² , 100 h)	Similar to ASTM D621	%	9
	Tensile modulus	DIN 53457	N/mm ²	650
Thermal	Thermal conductivity	DIN 52 612	W/m·K	0,35
	Coefficient of linear expansion (parallel to molding direction)	DIN 53 752	K ⁻¹	30-100 °C
				30-200 °C
30-260 °C				
Electrical	Dielectric strength	DIN 5348 VDE 0303 Part 2	kV/mm	105
	Volume resistivity	DIN VDE 0303 Part 3 30 IEC 93	Ohm·cm	10 ¹⁸
	Surface resistance	DIN VDE 0303 Part 3 30 IEC 93	Ohm	10 ¹⁷
Other	Flammability	DIN IEC 60695-11-10	-	V0

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