

TKG® FLON (PTFE)

Density 2,15 g/cm³

Colour White opaque

Chemical Designation PTFE (Polytetrafluorethylene)

PROPERTIES	RESULT	UNIT	PARAMETER	NORM USED
Mechanical properties				
Modulus of elasticity	-	MPa	1 mm/min	DIN EN ISO 527-2
Tensile strength	22	MPa		ASTM D 4894
Tensile strength at yield	-	MPa	50 mm/min	DIN EN ISO 527-2
Elongation at yield	-	%	50 mm/min	DIN EN ISO 527-2
Elongation at break	200 min	%		ASTM D 4894
Flexural strength	-	MPa	2 mm/min , 10 N	DIN EN ISO 178
Modulus of elasticity (flex test)	-	MPa	2 mm/min , 10 N	DIN EN ISO 178
Compression strength	5	MPa	1%	ASTM D 695
Compression Modulus	-	MPa	5 mm/min , 10 N	EN ISO 604
Impact strength (Charpy)	-	Kj/m ²	Máx 7,5j	DIN EN ISO 179-1EU
Ball indentation hardness	23 min	MPa		ISO 13000-2
Thermal Properties				
Glass transition temperature	-20	°C		DIN 53765
Melting temperature	-	°C		DIN 53765
Service temperature	260	°C	Short term	
Service temperature	260	°C	Long term	
Thermal expansion	13	10 ⁻⁵ K ⁻¹	25-100 °C long	ASTM C 177
Thermal expansion	0,20	W / (k*m)		ASTM C 177
Electrical Properties				
Surface resistance	10 ¹⁶	Ω		ASTM D 257
Specific volume resistance	10 ¹⁷	Ω*cm		ASTM D 257
Dielectric strength	80	kV / mm	In air	ASTM D 149
Dielectric constant	2,1		50 - 109 Hz	ASTM D 150
Miscellaneous Properties				
Water absorption	Less 0,01	%	23 °C	ASTM D 570
Resistance to hot mater/bases	-			
Resistance to weathering	-			
Flammability (UL94)	HB		According to	DIN IEC 60995-11-10

Main Characteristics

Excellent resistance to continuous service temperature up to 260 °C

Satisfactory low temperature resistance as low as -200 °C

Excellent chemical resistance

Excellent electrical insulation

Excellent slide and wear properties

Inherent flame retardant

Industry Applications

Conveyor technology

Chemical plant engineering

Electrical and precision engineering

Food engineering

Medical industry