

# TKG® FLON (PTFE)

**Density** 2,15 g/cm<sup>3</sup>

**Colour** White opaque

**Chemical Designation** PTFE ( Polytetrafluorethylene)

PROPERTIES	RESULT	UNIT	PARAMETER	NORM USED
<b>Mechanical properties</b>				
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 <sup>2</sup>	Max. 7,5j	DIN EN ISO 179-1EU
Ball indentation hardness	23 min.	MPa		ISO 13000-2
<b>Thermal properties</b>				
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 <sup>-5</sup> K <sup>-1</sup>	25-100°C long	ASTM C 177
Thermal conductivity	0,20	W / (k*m)		ASTM C 177
<b>Electrical properties</b>				
Surface resistance	10 <sup>16</sup>	Ω		ASTM D 257
Specific volume resistance	10 <sup>17</sup>	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
<b>Miscellaneous properties</b>				
Water absorption	Less 0,01	%	23°C	ASTM D 570
Resistance to hot mater / bases	-			
Resistance to weathering	-			
Flammability (UL94)	V0		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

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