

TKG® FLON 40GF (PTFE + 40%GLASS FIBRE)

Density 2,29 g/cm³

Colour Clear grey

Chemical Designation PTFE 60% (Polytetrafluorethylene) + Glass fibre 40%

PROPERTIES	RESULT	UNIT	PARAMETER	NORM USED
Mechanical properties				
Tensile strength	10 min.	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	100 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	-	MPa	1%	ASTM D 695
Deformation under load	10 – 12	%	140 Kg/cm ² for 24 h. at 23°C	ASTM D621
Coefficient of static friction	0,17 – 0,19			ASTM D1894
Coefficient of dynamic friction	0,15 – 0,17			ASTM D1894
Permanent deformation	5,0 – 6,5	%	after 24 h. relaxation at 23°C	ASTM D621
Hardness	63 min.	Shore D		ASTM D2240
Thermal properties				
Coeff. Linear thermal expansion	4,0 – 7,2	10 ⁻⁵ /°C	25-100°C long	ASTM D696
Coeff. Linear thermal expansion	4,2 – 7,5	10 ⁻⁵ /°C	25-150°C long	ASTM D696
Coeff. Linear thermal expansion	4,6 – 8,5	10 ⁻⁵ /°C	25-200°C long	ASTM D696
Coeff. Linear thermal expansion	5,4 – 10,4	10 ⁻⁵ /°C	25-250°C long	ASTM D696
Glass transition temperature	-	°C		DIN 53765
Service temperature	-200 / +260 min.	°C	Short term	
Service temperature	-200 / +260	°C	Long term	
Electrical properties				
Radiations resistance	-		Gamma rays	low
Volume resistance	10 ¹⁵	Ω*cm		ASTM D 257
Dielectric strength	-	kV / mm	In air	ASTM D 149
Dielectric constant	-		50 – 109 Hz	ASTM D 150
Miscellaneous properties				
Ageing and weatherability	-			
Resistance to hot mater / bases	-			
Resistance to weathering	-			
Flammability (UL94)	-		According to	DIN IEC 60995-11-10

MAIN CHARACTERISTICS

Great chemical stability

Improved compression and wear resistance

When combined with MoS₂ or graphite, the thermal conductivity and coefficient of friction improve

Suitability for contact with food (depending on application)

INDUSTRY APPLICATIONS

Dynamic seal applications with rotating and alternating movements

Pneumatic applications

Mechanical applications

Hydraulic applications

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