

## TKG® FLON 15GF (PTFE + 15%GLASS FIBRE)

**Density** 2,24 g/cm<sup>3</sup>

**Colour** Clear grey

**Chemical Designation** PTFE 85% ( Polytetrafluorethylene) + Glass fibre 15%

PROPERTIES	RESULT	UNIT	PARAMETER	NORM USED
<i>Mechanical properties</i>				
Tensile strength	18 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	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	-	MPa	1%	ASTM D 695
Deformation under load	11 – 13	%	140 Kg/cm <sup>2</sup> for 24 h. at 23°C	ASTM D621
Coefficient of static friction	0,18 – 0,20			ASTM D1894
Coefficient of dynamic friction	0,11 – 0,13			ASTM D1894
Permanent deformation	5,5 – 6,5	%	after 24 h. relaxation at 23°C	ASTM D621
Hardness	58 min.	Shore D		ASTM D2240

### *Thermal properties*

Coeff. Linear thermal expansion	8,9 – 12,7	10 <sup>-5</sup> /°C	25-100°C long	ASTM D696
Coeff. Linear thermal expansion	10,2 – 13,6	10 <sup>-5</sup> /°C	25-150°C long	ASTM D696
Coeff. Linear thermal expansion	11,5 – 14,2	10 <sup>-5</sup> /°C	25-200°C long	ASTM D696
Coeff. Linear thermal expansion	13,5 – 15,6	10 <sup>-5</sup> /°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 <sup>15</sup>	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 MoS<sub>2</sub> or graphite, the thermal conductivity and coefficient of friction improve

Suitability for contact with food (depending on application)

## INDUSTRY APPLICATIONS

Dynamic seal applications

Pneumatic applications

Mechanical applications

Hydraulic applications