

TKG® DF (PVDF)

Density 1,78 g/cm³

Colour WHITE opaque

Chemical Designation PVDF (Polyvinylidene fluoride)

PROPERTIES	RESULT	UNIT	PARAMETER	NORM USED
Mechanical properties				
Modulus of elasticity	2200	MPa	1 mm/min	DIN EN ISO 527-2
Tensile strength	62	MPa	50 mm/min	DIN EN ISO 527-2
Tensile strength at yield	62	MPa	50 mm/min	DIN EN ISO 527-2
Elongation at yield	8	%	50 mm/min	DIN EN ISO 527-2
Elongation at break	17	%	50 mm/min	DIN EN ISO 527-2
Flexural strength	77	MPa	2 mm/min , 10 N	DIN EN ISO 178
Modulus of elasticity (flex test)	2100	MPa	2 mm/min , 10 N	DIN EN ISO 178
Compression strength	16 / 28	MPa	1% / 2%. 5 mm/min , 10 N	EN ISO 604
Compression modulus	1900	MPa	5 mm/min , 10 N	EN ISO 604
Impact strength (Charpy)	150	Kj/m ²	Max. 7,5j	DIN EN ISO 179-1EU
Notched Impact stren. (Charpy)	-	Kj/m ²	Max. 7,5j	DIN EN ISO 179-1EU
Ball indentation hardness	129	MPa		ISO 2039-1
Thermal properties				
Glass transition temperature	-40	°C		DIN 53765
Melting temperature	171	°C		DIN 53765
Service temperature	150	°C	Short term	
Service temperature	150	°C	Long term	
Thermal expansion	16	10 ⁻⁵ K ⁻¹	23-60°C long	DIN EN ISO 11359-1;2
Thermal expansion	18	10 ⁻⁵ K ⁻¹	23-100°C long	DIN EN ISO 11359-1;2
Specific heat	1,3	J/(g·K)		ISO 22007-4:2008
Thermal conductivity	0,25	W/(K·m)		ISO 22007-4:2008
Electrical properties				
Surface resistance	10 ¹⁴	Ω		DIN IEC 60093
Miscellaneous properties				
Water absorption	<0,02 / <0,01	%	24h / 96h (23°C)	DIN EN ISO 62
Resistance to hot mater / bases	+			
Resistance to weathering	+			
Flammability (UL94)	V0		According to	DIN IEC 60995-11-10

MAIN CHARACTERISTICS

Great chemical resistance
 Very good weldable and electrical insulation
 Inherent flame retardant
 Good slide and wear resistance

INDUSTRY APPLICATIONS

Conveyor technology
 Electrical engineering
 Chemical plant industry
 Food engineering
 Solar panels construction

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