

TKG[®] 500(PE-HMW)

Density 0,96 g/cm³

Colour Natural opaque

Chemical Designation PE-HMW (Polyethylene High density)

PROPERTIES	RESULT	UNIT	PARAMETER	NORM USED
Mechanical properties				
Modulus of elasticity	160	MPa	In tension.	DIN EN ISO 527-2
Tensile strength at yield	27	MPa	50 mm/min	DIN EN ISO 527-2
Impact strength	No break	Kj/m ²	Max 7,5j	DIN EN ISO 179-1EU
Ball indentation hardness	46	Mpa		SO 2039-1
Elongation at break	100	%		DIN 527
Thermal properties				
Glass transition temperature	-95	°C		DIN 53765
Crystalline melting point	130 - 135	°C		DIN 53765
Service temperature	90	°C	Short term Long term	
Service temperature	80	°C	Short term Long term	
Thermal expansion	20	10 ⁻⁵ K ⁻¹		DIN 53483
Specific heat	1,80	J/(g·K)		ISO 22007-4:2008
Thermal conductivity	0,41	W/(K·m)		ISO 22007-4:2008
Heat distortion temperature	42 – 49	°C	Method A	R75
Heat distortion temperature	70 - 85	°C	Method B	R75
Electrical properties				
Surface resistance	10 ¹¹ min.	Ω		DIN IEC 60093
Specific volume resistance	10 ¹⁴ min.	Ω·cm		DIN IEC 60093
Tracking resistance				DIN 53480
Dielectric constant	2,40		At 10 ⁵ Hz.	DIN 53483
Dielectric loss factor			At 10 ⁵ Hz.	DIN 53483
Dielectric strength	40	kV/mm	1 mm.	ASTM 149
Miscellaneous properties				
Water absorption	0,02	%	24h / 96h (23oC)	DIN EN ISO 62
Resistance to hot mater / bases	Resistant			
Resistance to weathering	Resistant in colour			
Flammability (UL94)	HB		According to	DIN IEC 60995-11-10

MAIN CHARACTERISTICS

Very low water absorption

Resistant to dilute acids, solvents and cleaning agents

UV resistant

Good electrical insulation

Easily weldable

INDUSTRY APPLICATIONS

Food processing industry

Chemical machines

Low load rollers

Notice: The information given was made with our knowledge indicating our product's possible applications. Existing commercial patents must be observed. These values represent averages taken from samples, so we reserve the right of technical alterations. We cannot give a legally binding guarantee of certain properties or the suitability for a specific application. The customer is solely responsible for the quality and suitability of products for the application and has to test usage and processing prior to use. Data sheet values are subject to periodic review.