

# TKG® 500 (PE-HMW)

**Density** 0,96 g/cm<sup>3</sup>

**Colour** White / black / red / yellow / brown / green

**Chemical Designation** PE-HMW (Polyethylene High density)

PROPERTIES	RESULT	UNIT	PARAMETER	NORM USED
<b>Mechanical properties</b>				
Modulus of elasticity	1060	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 <sup>2</sup>	Max. 7,5j	DIN EN ISO 179-1EU
Ball indentation hardness	46	MPa		ISO 2039-1
Elongation at break	100	%		DIN 527
<b>Thermal properties</b>				
Glass transition temperature	-95	°C		DIN 53765
Crystalline melting point	130 - 135	°C		DIN 53765
Service temperature	90	°C	Short term	
Service temperature	80	°C	Long term	
Thermal expansion	20	10 <sup>-5</sup> K <sup>-1</sup>		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
<b>Electrical properties</b>				
Surface resistance	10 <sup>11</sup> min.	Ω		DIN IEC 60093
Specific volume resistance	10 <sup>14</sup> min.	Ω*cm		DIN IEC 60093
Tracking resistance	-			DIN 53480
Dielectric constant	2,40		At 10 <sup>5</sup> Hz.	DIN 53483
Dielectric loss factor	-		At 10 <sup>5</sup> Hz.	DIN 53483
Dielectric strength	40	kV/mm	1 mm.	ASTM 149
<b>Miscellaneous properties</b>				
Water absorption	0,02	%	24h / 96h (23°C)	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

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