

# TKG® PP (PP)

**Density** 0,92 g/cm<sup>3</sup>

**Colour** Natural / beige Grey / black

**Chemical Designation** PP (Polypropylene)

PROPERTIES	RESULT	UNIT	PARAMETER	NORM USED
<b>Mechanical properties</b>				
Modulus of elasticity	2000	MPa	1 mm/min	DIN EN ISO 527-2
Tensile strength	33	MPa	50 mm/min	DIN EN ISO 527-2
Tensile strength at yield	33	MPa	50 mm/min	DIN EN ISO 527-2
Elongation at yield	5	%	50 mm/min	DIN EN ISO 527-2
Elongation at break	65	%	50 mm/min	DIN EN ISO 527-2
Flexural strength	54	MPa	2 mm/min , 10 N	DIN EN ISO 178
Modulus of elasticity (flex test)	1800	MPa	2 mm/min , 10 N	DIN EN ISO 178
Compression strength	15 / 26	MPa	1% / 2% 5 mm/min , 10 N	EN ISO 604
Compression Modulus	1600	MPa	5 mm/min , 10 N	EN ISO 604
Impact strength (Charpy)	140	Kj/m <sup>2</sup>	Máx 7,5j	DIN EN ISO 179-1EU
Notched impact stren (Charpy)	-	Kj/m <sup>2</sup>	Máx 7,5j	DIN EN ISO 179-1EU
Ball indentation hardness	100	MPa		ISO 2039-1
<b>Thermal Properties</b>				
Glass transition temperature	-10	°C		DIN 53765
Melting temperature	165	°C		DIN 53765
Service temperature	140	°C	Short term	
Service temperature	100	°C	Long term	
Thermal expansion	13	10 <sup>-5</sup> K <sup>-1</sup>	23-60 °C long	DIN EN ISO 11359-1:2
Thermal expansion	14	10 <sup>-5</sup> K <sup>-1</sup>	23-100 °C long	DIN EN ISO 11359-1:2
Specific heat	-	J/(g·K)		ISO 22007-4:2008
Thermal conductivity	-	W/(K·m)		ISO 22007-4:2008
<b>Electrical Properties</b>				
Surface resistance	-	Ω		DIN IEC 60093
<b>Miscellaneous Properties</b>				
Water absorption	0,01 / 0,02	%	24h / 96h (23 °C)	DIN EN ISO 62
Resistance to hot mater/bases (+)				
Resistance to weathering	-			
Flammability (UL94)	HB		According to	DIN IEC 60995-11-10

## Main Characteristics

- Very low water absorption
- Great resistant to dilute acids, solvents and cleaning agents
- Very tough
- Great electrical insulation
- Easily weldable

## Industry Applications

- Water treatment plants
- Food processing industry
- Drip pans
- Seals
- Ventilation ducts