

TKG® AL (POM C)

Density 1,41 g/cm³

Colour Natural opaque

Chemical Designation POM C (Polyacetal copolymer)

PROPERTIES	RESULT	UNIT	PARAMETER	NORM USED
Mechanical properties				
Modulus of elasticity	2800	MPa	1 mm/min	DIN EN ISO 527-2
Tensile strength	67	MPa	50 mm/min	DIN EN ISO 527-2
Tensile strength at yield	67	MPa	50 mm/min	DIN EN ISO 527-2
Elongation at yield	9	%	50 mm/min	DIN EN ISO 527-2
Elongation at break	32	%	50 mm/min	DIN EN ISO 527-2
Flexural strength	91	MPa	2 mm/min , 10 N	DIN EN ISO 178
Modulus of elasticity (flex test)	2600	MPa	2 mm/min , 10 N	DIN EN ISO 178
Compression strength	20 / 35	MPa	1% / 2%. 5 mm/min , 10 N	EN ISO 604
Compression modulus	2300	MPa	5 mm/min , 10 N	EN ISO 604
Impact strength (Charpy)	No break	Kj/m ²	Max. 7,5j	DIN EN ISO 179-1EU
Ball indentation hardness	165	MPa		ISO 2039-1
Thermal properties				
Glass transition temperature	- 60	°C		DIN 53765
Melting temperature	166	°C		DIN 53765
Service temperature	140	°C	Short term	
Service temperature	100	°C	Long term	
Thermal expansion	13	10 ⁻⁵ K ⁻¹	23-60°C long	DIN EN ISO 11359-1;2
Thermal expansion	14	10 ⁻⁵ K ⁻¹	23-100°C long	DIN EN ISO 11359-1;2
Specific heat	1,4	J/(g·K)		ISO 22007-4:2008
Thermal conductivity	0,39	W/(K·m)		ISO 22007-4:2008
Electrical properties				
Surface resistance	10 ¹⁴	Ω		DIN IEC 60093
Miscellaneous properties				
Water absorption	0,05 / 0,1	%	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

High toughness
 Good machinability
 High strength
 Resistant against cleaning agents
 Good slide and wear resistance

INDUSTRY APPLICATIONS

Medical technology
 Food engineering
 Electrical engineering
 Automotive industry
 Mechanical engineering

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, the most recent update can be found at www.traidvillarroya.com. Traidamid, TKG and TVH as well as their logos are registered trademarks of the Traid Villarroja group of companies, in Europe and other countries.