

TRAIDAMID® G black (PA6 C black)

Density 1,14 g/cm³

Colour Black opaque

Chemical Designation PA6 C (Cast polyamide 6)

PROPERTIES	RESULT	UNIT	PARAMETER	NORM USED
Mechanical properties				
Modulus of elasticity	3100	MPa	1 mm/min	DIN EN ISO 527-2
Tensile strength	70	MPa	50 mm/min	DIN EN ISO 527-2
Tensile strength at yield	68	MPa	50 mm/min	DIN EN ISO 527-2
Elongation at yield	4	%	50 mm/min	DIN EN ISO 527-2
Elongation at break	50	%	50 mm/min	DIN EN ISO 527-2
Flexural strength	95	MPa	2 mm/min , 10 N	DIN EN ISO 178
Modulus of elasticity (flex test)	2900	MPa	2 mm/min , 10 N	DIN EN ISO 178
Compression strength	21 / 37	MPa	1% / 2%. 5 mm/min , 10 N	EN ISO 604
Compression modulus	2700	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
Notched Impact stren. (Charpy)	5	Kj/m ²	Max. 7,5j	DIN EN ISO 179-1EU
Ball indentation hardness	150	MPa		ISO 2039-1
Thermal properties				
Glass transition temperature	42	°C		DIN 53765
Melting temperature	216	°C		DIN 53765
Service temperature	170	°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	13	10 ⁻⁵ K ⁻¹	23-100°C long	DIN EN ISO 11359-1;2
Specific heat	1,7	J/(g·K)		ISO 22007-4:2008
Thermal conductivity	0,37	W/(K·m)		ISO 22007-4:2008
Electrical properties				
Surface resistance	> 10 ¹²	Ω		DIN IEC 60093
Miscellaneous properties				
Water absorption	0,2 / 0,4	%	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 strength
 Resistant to many greases, oils and fuels
 High toughness
 Good slide and wear resistance
 Good wear properties

INDUSTRY APPLICATIONS

Heavy duty industry
 Conveyor technology
 Textile industry
 Mechanical engineering
 Engine manufacturing

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 Villarroya group of companies, in Europe and other countries.