

TECAMID 6 ID blue - Stock Shapes (rods, plates, tubes)

Chemical Designation

PA 6 (Polyamide 6)

Colour

blue grey opaque

Density

1.24 g/cm³

Fillers

detectable filler

Main features

- high toughness
- resistant to many oils, greases and fuels
- electrically insulating
- good wear properties
- good weldable and bondable
- good slide and wear properties
- high strength
- good machinability

Target Industries

- electronics
- food technology
- mechanical engineering

Data generated directly after machining
(standard climate Germany).

Mechanical properties	parameter	value	unit	norm	comment
Tensile strength	50mm/min	80	MPa	DIN EN ISO 527-2	(1) For tensile test: specimen type 1b
Modulus of elasticity (tensile test)	1mm/min	3600	MPa	DIN EN ISO 527-2	1) (2) For Charpy test: support span 64mm, norm specimen. n.b. = not broken
Tensile strength at yield	50mm/min	80	MPa	DIN EN ISO 527-2	
Elongation at yield	50mm/min	4	%	DIN EN ISO 527-2	
Elongation at break	50mm/min	21	%	DIN EN ISO 527-2	
Impact strength (Charpy)	max. 7,5J	n.b.	kJ/m ²	DIN EN ISO 179-1eU	2)
Notched impact strength (Charpy)	max. 7,5J	4	kJ/m ²	DIN EN ISO 179-1eA	
Thermal properties	parameter	value	unit	norm	comment
Glass transition temperature		45	°C	DIN EN ISO 11357	1) (1) Found in public sources.
Melting temperature		220	°C	DIN EN ISO 11357	(2) Found in public sources. Individual testing regarding application conditions is mandatory.
Service temperature	short term	160	°C		2)
Service temperature	long term	100	°C		
Electrical properties	parameter	value	unit	norm	comment
surface resistivity	Silver electrode, 23°C, 12% r.h.	> 10 ¹³	Ω	DIN IEC 60093	1) (1) Specimen in 20mm thickness
Other properties	parameter	value	unit	norm	comment
Water absorption	24h / 96h (23°C)	0.3 / 0.6	%	DIN EN ISO 62	1) (1) Ø ca. 50mm, h=13mm
Resistance to hot water/ bases		(+)		-	2) (2) (+) limited resistance
Resistance to weathering		-		-	3) (3) - poor resistance
Flammability (UL94)	corresponding to	HB		DIN IEC 60695-11-10;	4) (4) Corresponding means no listing at UL (yellow card). The information might be taken from resin, stock shape or estimation. Individual testing regarding application conditions is mandatory.

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