

TECAST T blue - Stock Shapes (rods, plates, tubes)

Chemical Designation

PA 6 C (Cast polyamide 6)

Colour

blue

Density

1.15 g/cm³

Main features

- good wear properties
- good mechanical properties
- high fatigue strength
- good damping
- high mechanical load capacity
- resistant to many oils, greases and fuels

Target Industries

- construction industry
- gear manufacturing
- oil and gas industry
- conveyor technology
- agricultural machinery
- heavy duty industry
- mining industry

Data generated directly after machining
(standard climate Germany).

Mechanical properties	parameter	value	unit	norm	comment
Tensile strength	50mm/min	89	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)
Tensile strength at yield	50mm/min	89	MPa	DIN EN ISO 527-2	
Elongation at yield (tensile test)	50mm/min	18	%	DIN EN ISO 527-2	
Elongation at break (tensile test)	50mm/min	25	%	DIN EN ISO 527-2	
Shore hardness	D	82		DIN EN ISO 868	
Thermal properties	parameter	value	unit	norm	comment
Glass transition temperature		49	°C	DIN EN ISO 11357	(1) Found in public sources. Individual testing regarding application conditions is mandatory.
Melting temperature		217	°C	DIN EN ISO 11357	(2) Found in public sources.
Service temperature	short term	170	°C	-	1)
Service temperature	long term	100	°C	-	
Thermal expansion (CLTE)	23-60°C, long.	11	10 ⁻⁵ K ⁻¹	DIN EN ISO 11359-1;2	2)
Specific heat		1.6	J/(g*K)	ISO 22007-4:2008	
Thermal conductivity		0.33	W/(K*m)	ISO 22007-4:2008	
Electrical properties	parameter	value	unit	norm	comment
surface resistivity		10 ¹⁴	Ω	DIN IEC 60093	
Other properties	parameter	value	unit	norm	comment
Moisture absorption	24h / 96h (23°C)	0.2 / 0.5	%	DIN EN ISO 62	1) (1) Ø ca. 50mm, h=13mm 2) (+) limited resistance 3) 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.
Resistance to hot water/ bases		(+)		-	2)
Resistance to weathering		(+)		-	
Flammability (UL94)	corresponding to	HB		DIN IEC 60695-11-10;	3)

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