

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

Chemical Designation

PA 6 C (Cast polyamide 6)

Colour

blue

Density

1.15 g/cm³

Data generated directly after machining
(standard climate Germany).

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

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	
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. (2) Found in public sources.
Melting temperature		217	°C	DIN EN ISO 11357	
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)
Resistance to hot water/ bases		(+)		-	2)
Resistance to weathering		(+)		-	
Flammability (UL94)	corresponding to	HB		DIN IEC 60695-11-10;	3)

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