

# TECAST L - Stock Shapes

## Chemical Designation

PA 6 C (Cast polyamide 6)

## Colour

natural opaque

## Density

1.13 g/cm<sup>3</sup>

## Fillers

oil

## Main features

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

## Target Industries

- mechanical engineering
- conveyor technology
- packaging and paper machinery
- automotive industry
- clutch and engine manufacturing
- heavy duty industry

Data generated directly after machining  
(standard climate Germany).

Mechanical properties	parameter	value	unit	norm	comment
Modulus of elasticity (tensile test)	1mm/min	2900	MPa	DIN EN ISO 527-2	1)
Tensile strength	50mm/min	69	MPa	DIN EN ISO 527-2	
Tensile strength at yield	50mm/min	66	MPa	DIN EN ISO 527-2	
Elongation at yield	50mm/min	8	%	DIN EN ISO 527-2	
Elongation at break	50mm/min	50	%	DIN EN ISO 527-2	
Flexural strength	2mm/min, 10 N	95	MPa	DIN EN ISO 178	2)
Modulus of elasticity (flexural test)	2mm/min, 10 N	2900	MPa	DIN EN ISO 178	
Compression strength	1% / 2% 5mm/min, 10 N	19 / 35	MPa	EN ISO 604	3)
Compression modulus	5mm/min, 10 N	2700	MPa	EN ISO 604	4)
Impact strength (Charpy)	max. 7,5J	n.b.	kJ/m <sup>2</sup>	DIN EN ISO 179-1eU	5)
Notched impact strength (Charpy)	max. 7,5J	5	kJ/m <sup>2</sup>	DIN EN ISO 179-1eA	
Ball indentation hardness		150	MPa	ISO 2039-1	6)
Thermal properties	parameter	value	unit	norm	comment
Glass transition temperature		48	°C	DIN 53765	1)
Melting temperature		218	°C	DIN 53765	
Service temperature	short term	170	°C		2)
Service temperature	long term	100	°C		
Thermal expansion (CLTE)	23-60°C, long.	13	10 <sup>-5</sup> K <sup>-1</sup>	DIN EN ISO 11359-1;2	
Thermal expansion (CLTE)	23-100°C, long.	13	10 <sup>-5</sup> K <sup>-1</sup>	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	parameter	value	unit	norm	comment
Specific surface resistance		10 <sup>14</sup>	Ω	DIN IEC 60093	
Specific volume resistance		10 <sup>14</sup>	Ω*cm	DIN IEC 60093	
Other properties	parameter	value	unit	norm	comment
Water absorption	24h / 96h (23°C)	0.2 / 0.4	%	DIN EN ISO 62	1)
Resistance to hot water/ bases		(+)	-	-	2)
Resistance to weathering		-	-	-	3)
Flammability (UL94)	corresponding to	HB	-	DIN IEC 60695-11-10;	4)

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