

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

### Chemical Designation

PA 6 (Polyamide 6)

### Colour

blue grey opaque

### Density

1.24 g/cm<sup>3</sup>

### 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).

<b>Mechanical properties</b>	<b>parameter</b>	<b>value</b>	<b>unit</b>	<b>norm</b>	<b>comment</b>
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	(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 (tensile test)	50mm/min	4	%	DIN EN ISO 527-2	
Elongation at break (tensile test)	50mm/min	21	%	DIN EN ISO 527-2	
Impact strength (Charpy)	max. 7,5J	n.b.	kJ/m <sup>2</sup>	DIN EN ISO 179-1eU	(2)
Notched impact strength (Charpy)	max. 7,5J	4	kJ/m <sup>2</sup>	DIN EN ISO 179-1eA	
Shore hardness	D	81		DIN EN ISO 868	
<b>Thermal properties</b>	<b>parameter</b>	<b>value</b>	<b>unit</b>	<b>norm</b>	<b>comment</b>
Glass transition temperature		45	°C	DIN EN ISO 11357	(1)
Melting temperature		220	°C	DIN EN ISO 11357	(2)
Service temperature	short term	160	°C		(2)
Service temperature	long term	100	°C		
<b>Electrical properties</b>	<b>parameter</b>	<b>value</b>	<b>unit</b>	<b>norm</b>	<b>comment</b>
surface resistivity	Silver electrode, 23°C, 12% r.h.	> 10 <sup>13</sup>	Ω	-	(1)
<b>Other properties</b>	<b>parameter</b>	<b>value</b>	<b>unit</b>	<b>norm</b>	<b>comment</b>
Water absorption	24h / 96h (23°C)	0.3 / 0.6	%	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)

Our information and statements reflect the current state of our knowledge and shall inform about our products and their applications. They do not assure or guarantee chemical resistance, quality of products and their merchantability in a legally binding way. Our products are not defined for use in medical or dental implants. Existing commercial patents have to be observed. The corresponding values and information are no minimum or maximum values, but guideline values that can be used primarily for comparison purposes for material selection. These values are within the normal tolerance range of product properties and do not represent guaranteed property values. Therefore they shall not be used for specification purposes. Unless otherwise noted, these values were determined by tests at reference dimensions (typically rods with diameter 40-60 mm according to DIN EN 15860) on extruded and machined specimen. As the properties depend on the dimensions of the semi-finished products and the orientation in the component (esp. in reinforced grades), the material may not be used without a separate testing under individual circumstances. 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.ensingerplastics.com](http://www.ensingerplastics.com). Technical changes reserved.