

TECHNICAL DATA SHEET

**TECHNYL SHAPE A 402H1 NC**  
(Previously TECHNYL A 402H1 NATURAL)

TECHNYL SHAPE A 402H1 NC is an unreinforced polyamide 66, very high viscosity, heat stabilized, for extrusion and injection moulding. This grade offers three main advantages: high impact resistance at low humidity levels, good rigidity, and excellent compression resistance.

**General**

Feature	High viscosity	High impact resistant
Polymer type	PA66 (Polyamide 66)	
Processing technology	Extrusion	
Certification	RoHS	
Applications	Consumer good application Sport	Industrial Applications
Colors available	Natural	
Forms	Pellets	

**Product identification**

ISO 1043 abbreviation	PA66
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Condition	Standard	Unit	Value
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**Physical properties**

	Condition	Standard	Unit	Value
Density		ISO 1183	g/cm <sup>3</sup>	1.14
Water absorption	24 hr, 23°C	ISO 62	%	1.5

**Mechanical properties**

dam / cond.\*

	Condition	Standard	Unit	Value
Tensile modulus	1 mm/min	ISO 527-1/-2	MPa	3100 / 1300
Stress at break		ISO 527-1/-2	MPa	55 / 45
Strain at break		ISO 527-1/-2	%	35 / 150
Flexural modulus, ISO 178	2 mm/min	ISO 178	MPa	2800 / 1200
Flexural strength, ISO 178	2 mm/min	ISO 178	MPa	120 / 75
Charpy notched impact strength, +23°C	+23°C	ISO 179/1eA	kJ/m <sup>2</sup>	7 / 30
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m <sup>2</sup>	6 / 65

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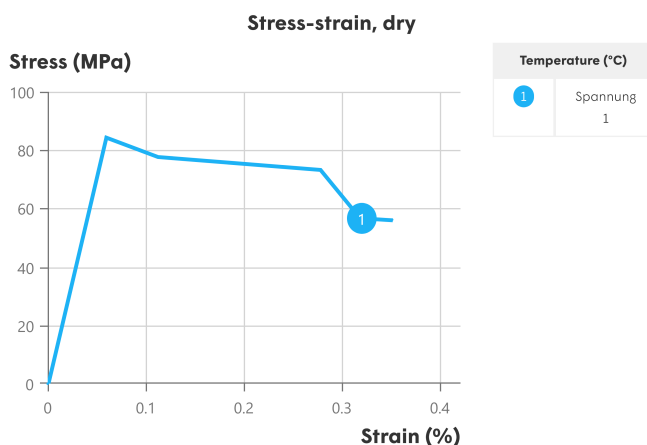
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	Condition	Standard	Unit	Value
<b>Thermal properties</b>				
Melting temperature, 10°C/min		ISO 11357-1	°C	263
Temp. of deflection under load, 0.45 MPa	0.45 MPa	ISO 75	°C	190
Temp. of deflection under load, 1.80 MPa	1.80 MPa	ISO 75	°C	65

<b>Electrical properties</b>				
Volume resistivity		IEC 62631-3-1	ohm.m	1E+013
Surface resistivity		IEC 62631-3-1	ohm	1E+013
Comparative tracking index	Solution A	IEC 60112	V	475
CTI performance level category		Sol A		PLC 1
Dielectric strength	1 mm	IEC 60243-1	kV/mm	22

\*: conditioned according to ISO 1110

<b>Processing conditions</b>	
Drying temperature/time	8H at 80°C with dry air, dew point -35°C
Suggested max moisture	0.08 %
Feed zone temperature for extrusion	260 - 270 °C
Compression zone temperature for extrusion	275 - 290 °C
Front zone temperature for extrusion	275 - 290 °C
Die zone temperature for extrusion	265 - 285 °C
Recommended extrusion temperature	260 - 290 °C



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