

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

Density		ISO 1183	g/cm ³	1.14
Water absorption	24 hr, 23°C	ISO 62	%	1.5

Mechanical properties

dam / cond.*

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 ²	7 / 30
Izod notched impact strength, +23°C	+23°C	ISO 180/1A	kJ/m ²	6 / 65

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

Electrical properties

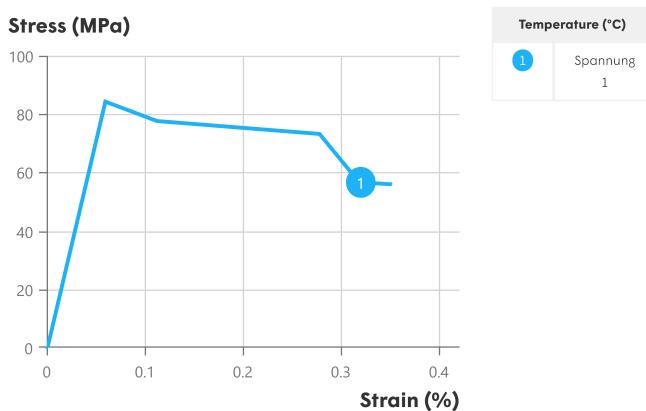
Volume resistivity	IEC 62631-3-1	ohm.m	1E+013
Surface resistivity	IEC 62631-3-1	ohm	1E+013
Comparative tracking index	IEC 60112	V	475
CTI performance level category	Sol A		PLC 1
Dielectric strength	IEC 60243-1	kV/mm	22

*: conditioned according to ISO 1110

Processing conditions

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

Stress-strain, dry



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