

TECHNYL® A 221 T1 NATURAL S

Product Datasheet - June 2007

Description

Unreinforced polyamide 66, medium viscosity, with a special crystallizing agent for very fast cycles, with improved thermal stability, for injection moulding.

Product Applications

TECHNYL® A 221T1 NATURAL S offers a good combination between primary properties of the unreinforced polyamide 66 and processing properties leading to increased productivity. These performances are associated with excellent dimensional stability and good rigidity of moulded parts. This grade is used in a wide variety of industries:

- Automotive: connectors
- Electrical: connectors, rotary switches
- Consumer goods: lighters, aerosol valves.

This product is available in large range of colours, and in special colours on request.

Processing

The material is supplied in airtight bags, ready for use. In the case that the virgin material has absorbed moisture, it must be dried to a final moisture content of less than 0,2% with a dehumidified air drying equipment at approx 80°C.

Recommended moulding conditions:

Barrel temperatures:

- feed zone 250 - 270°C
- compression zone 260 - 280°C
- front zone 270 - 290°C

Mould temperatures: 60 at 80°C

For more detailed information, please refer to the technical sheet Injection moulding.

Safety

Please refer to the Safety Data Sheet 3IJDN4OQ8FS



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The values of properties are for natural grade.

Properties	Standards	Unit	Values	
			d.a.m*.	Cond.**
Physical				
Water absorption (24 h at 23°C)	ISO 62	%	1.10	-
Density	ISO 1183-A	g/cm3	1.14	-
Molding shrinkage Parallel (1) (RHODIA-EP)	RHODIA-EP	%	1.77	-
Molding shrinkage normal or perpendicular (1) (Rhodia EP)	RHODIA-EP	%	2.11	-
Molding Shrinkage Isotropy	RHODIA-EP		0.84	-
Mechanical				
Tensile modulus	ISO 527 type 1 A	MPa	3100	1600
Tensile strength at yield	ISO 527 type 1 A	MPa	95	60
Elongation at break	ISO 527 type 1 A	%	20	160
Tensile strength at break	ISO 527 type 1 A	MPa	85	45
Flexural modulus	ISO 178	MPa	3300	1600
Flexural maximum stress	ISO 178	MPa	140	60
Charpy notched impact strength	ISO 179/1eA	kJ/m2	4	12
Charpy notched impact strength (-30°C)	ISO 179/1eA	kJ/m2	2	2
Charpy unnotched impact strength	ISO 179/1eU	kJ/m2	NB	NB
Flamability				
Flammability UL 94 (Thickness 0,8 mm)	ISO 1210/UL 94		V2	-
Flammability UL 94 (Thickness 1,6 mm)	ISO 1210/UL 94		V2	-
Glow wire flammability index (thickness = 1,6)	IEC 60695-2-12	°C	700	-
Limit Oxygen index	ISO 4589		26	-
Thermal				
Melting Temperature	ISO 11357	°C	263	-
Heat deflection temperature 0,45 Mpa	ISO 75/Bf	°C	80	-
Coef. of Linear thermal expansion parallel (23°C to 85°C)	ISO 11359	E-5 / °C	6	-
Electrical				
Relative permittivity	IEC 60250		2.90	3.20
Dissipation factor	IEC 60250		0.03	0.08
Volume resistivity	IEC 60093	Ohm.cm	10E14	10E13
Surface resistivity	IEC 60093	Ohm	10E14	10E11
Dielectric strength	IEC 60243	kV/mm	27	26
Comparative tracking index sol. A	IEC 60112	Volt	600	600
Comparative tracking index sol. B	IEC 60112	Volt	500	-

Identification Code : >PA66<

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d.a.m*.

Cond.**

