

## TECHNYL® A 50H1

Product Datasheet - February 2007

### Description

Flame retardant polyamide 66, unreinforced, heat stabilised, for injection moulding.

### Product Applications

This phosphorus and halogen free flame retardant grade, offers excellent filling qualities combined with good stiffness.

It is particularly suitable for moulding insulating parts for electrical components:

- Components for electrical connections: junction blocks, terminal blocks, connectors.

This product is available in natural. Other colours can be provided upon 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 265 - 275°C

- compression zone 265 - 275°C

- front zone 270 - 280°C

Mould temperatures : 60 at 80°C

### Safety

Please refer to the Safety Data Sheet



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The values of properties are for natural grade.

Properties	Standards	Unit	Values	
<b>Physical</b>				
Water absorption (24 h at 23°C)	ISO 62	%	0.88	-
Density	ISO 1183-A	g/cm3	1.16	-
Molding shrinkage normal or perpendicular (ISO 294-4)	ISO 294-4	%	0.95	-
Molding shrinkage Parallel (ISO 294-4)	ISO 294-4	%	1.10	-
<b>Mechanical</b>				
Tensile modulus	ISO 527 type 1 A	MPa	3800	2200
Tensile strength at yield	ISO 527 type 1 A	MPa	86	53
Tensile strain at yield	ISO 527 type 1 A	%	4.22	22.30
Tensile strain at break	ISO 527 type 1 A	%	21	140
Tensile strength at break	ISO 527 type 1 A	MPa	75	46
Flexural modulus	ISO 178	MPa	3700	1710
Flexural maximum stress	ISO 178	MPa	137	61
Charpy notched impact strength	ISO 179/1eA	kJ/m2	3.20	10.10
Charpy unnotched impact strength	ISO 179/1eU	kJ/m2	114	-
Charpy unnotched impact strength	ISO 179/1eU	kJ/m2	130	NB
Izod notched impact strength	ISO 180/1A	kJ/m2	3	10
<b>Flamability</b>				
Flammability UL 94 (Thickness 0,38 mm)	ISO 1210/UL 94		V0	-
Flammability UL 94 (Thickness 0,8 mm)	ISO 1210/UL 94		V0	-
Flammability UL 94 (Thickness 1,6 mm)	ISO 1210/UL 94		V0	-
Flammability UL 94 (Thickness 3,2 mm)	ISO 1210/UL 94		V0	-
Glow wire flammability index (thickness = 0,8)	IEC 60695-2-12	°C	960	-
Glow wire flammability index (thickness = 1,6)	IEC 60695-2-12	°C	960	-
Glow wire flammability index (thickness = 3,2)	IEC 60695-2-12	°C	960	-
Glow wire ignatability temperature (thickness = 1,6)	IEC 60695-2-13	°C	725	-
<b>Thermal</b>				
Melting Temperature	ISO 11357	°C	263	-
Heat deflection temperature, 1,8 Mpa	ISO 75/Af	°C	85	-
Heat deflection temperature 0,45 Mpa	ISO 75/Bf	°C	237	-
<b>Electrical</b>				
Comparative tracking index sol. A	IEC 60112	Volt	600	-

Identification Code : >PA66 FR(30)<

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