TECHNYL® A 60G1 V30

Product Datasheet - November 2009

Description

Flame retardant Polyamide PA66 reinforced with 30% of glass fibre, for injection moulding.

Product Applications

This Red Phosphorous and Halogen free flame retardant grade, combines excellent all-round mechanical properties with outstanding flame retardancy (UL 5VA at 1.6mm) and electrical performance. This product is ideally suited for industrial controls and power distribution applications such as MCBs and contactors. The long term thermal performance of this grade also make it ideal for under-the-bonnet Auto applications where it can withstand temperatures of 160°C for over 6000hrs. The thermal ageing value for this product in accordance to the IEC 216 RTI are the following;
-Impact 160°C @ 6000hrs & 140 @ 20000hrs
-Strength 165°C @ 6000hrs & 145 @ 20000hrs
-Dielectric 160°C @ 6000hrs & 145 @ 20000hrs
This product is available in Natural, Grey and Black. Specific colours and Laser Marking grades optimised for YAG and UV laser types are also available 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 260 - 275°C
- compression zone 275 - 280°C
- front zone 280 - 285°C
Mould temperatures: 60 - 80°C
For products containing Flame additives Rhodia recomends the use of a CR19% C1.9% coating for the steels to help extend the life time of the processing equipment.

Safety

Please refer to the Safety Data Sheet

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The values of properties are for the natural grade.

Properties	Standards	Unit	Values	
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Physical				
Water absorption (24 h at 23°C)	ISO 62	%	0.73	-
Density	ISO 1183-A	g/cm3	1.46	-
Molding Shrinkage Isotropy (Rhodia EP)	RHODIA-EP		0.40	-
Molding shrinkage normal or perpendicular (ISO 294-4)	ISO 294-4	%	0.80	-
Molding shrinkage Parallel (ISO 294-4)	ISO 294-4	%	0.30	-
Mechanical				
Tensile modulus	ISO 527 type 1 A	MPa	11700	8410
Elongation at break	ISO 527 type 1 A	%	2.30	4.20
Tensile strength at break	ISO 527 type 1 A	MPa	150	115
Charpy notched impact strength	ISO 179/1eA	kJ/m2	6.70	9.5
Charpy unnotched impact strength	ISO 179/1eU	kJ/m2	55	78
Flamability				
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 ignition temperature (thickness = 0,8)	IEC 60695-2-13	°C	775	-
Glow wire ignition temperature (thickness = 1,6)	IEC 60695-2-13	°C	775	-
Limit Oxygen index	ISO 4589		33	-
Thermal				
Melting Temperature	ISO 11357	°C	263	-
Heat deflection temperature, 1,8 Mpa	ISO 75/Af	°C	245	-
Electrical				
Comparative tracking index sol. A	IEC 60112	Volt	600	-

Identification Code : >PA66-GF30 FR(40)<

d.a.m*.

Cond.**

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