

News

The latest evolution of the KB family in FR Compounds

LATAMID 66 H2 G/25-VOKB4

LATI now offers an enlarged range of non-halogenated flame-retardant nylons.

The use of a red-phosphorus flame retardant preserves the mechanical properties of the base material, especially impact strength. Due to the efficiency of the additive, small quantities are required, so density is unchanged as well.

Our **LATAMID 66 H2 G/25-VOKB4** series nylon provide exceptional property combination for a host of applications. These new halogen-free products can be regarded as the latest evolution of the KB family based on red-phosphorus. They offer very good mechanical properties (IZOD >120 J/m) and an improved GWT.

In addition, they fulfil the recent modifications made to the Standard IEC 60335-1 (4th Edition) for unattended electrical devices under the most critical fire risk conditions, which prescribe the following requirements: GWFI $\geq 850^{\circ}\text{C}$, GWIT $\geq 775^{\circ}\text{C}$, Heat Resistance (Ball Indentation Test) $\geq 125^{\circ}\text{C}$ and Resistance to Tracking (CTI) $\geq 250\text{ V}$.

LATI is willing to share with you its expertise in this field, and its T.S. and R&D Teams are at your complete disposal to analyse your requirements and collaborate on project developments.

Key benefits:

- Halogen free;
- Very good mechanical properties;
- Improved GWIT $\geq 775^{\circ}\text{C}$;
- CTI $\geq 500\text{ V}$;
- UL94-V0.



LATAMID 66 H2 G/25-V0KB4

PA 66, heat stabilised, glass fibres, UL94 V-0, with red-phosphorus

PROPERTIES (typical values)		Standards	Units (SI)	LATAMID 66 H2 G/25-V0KB4 NAT.:0046	LATAMID 66 H2 G/25-V0KB4 BLACK:3390
Physical					
Density	23°C	ISO 1183	g/cm ³	1.30	1.30
Linear shrinkage during moulding (plaque 120 x 80 x 3.5 mm)	along flow	LATI	%	0.3 ÷ 0.5	0.3 ÷ 0.5
	across flow			0.7 ÷ 0.9	0.7 ÷ 0.9
Mechanical					
IZOD - Impact strength (notched) (specimen 63.5 x 12.7 x 3.2 mm)	23°C	ASTM D256-A	J/m	130	120
CHARPY Impact strength (unnotched) (specimen 80 x 10 x 4 mm)	23°C	ISO 179-1eU	kJ/m ²	70	60
CHARPY Impact strength (notched) (specimen 80 x 10 x 4 mm)	23°C	ISO 179-1eU	kJ/m ²	12	11.5
Tensile Modulus	speed 1 mm/min	ISO 527 (1)	MPa	6500	6500
Tensile strength at break	speed 5 mm/min	ISO 527 (1)	MPa	100	100
Tensile elongation at break	speed 5 mm/min	ISO 527 (1)	%	3.5	3.5
Thermal					
VICAT - Softening point (heating rate 50°C/h)	49 N	ISO 306	°C	215	215
HDT - Heat Distortion Temperature	0.45 MPa	ISO 75	°C	250	250
	1.82 MPa			210	210
Electrical					
CTI - Comparative Tracking Index	"A" solution (without surfactant)	IEC 112	V	550	500
Flammability					
L.O.I. - Oxygen Index		ASTM D 2683	%	27	27
Flammability Rating	@ 3.00 mm thickness	UL-94	Class	V-0	V-0
	@ 1.50 mm thickness			V-0	V-0
	@ 0.75 mm thickness			V-0	V-0
GWFI Glow-Wire Flammability Index	@ 1 mm thickness	IEC 695-2-12	°C	960	960
	@ 2 mm thickness			960	960
GWIT Glow-Wire Ignition Temperature	@ 1 mm thickness	IEC 695-2-13	°C	775	775
	@ 2 mm thickness			850	850

This document contains information based on average values as obtained from the results of laboratory tests and observations made on our materials. Tested materials were injection moulded, used in their natural colour, and conditioned in compliance with Standard ASTM D 618, procedure A (40 h - 23°C - 50%R.H.). These data refer to our best technical and scientific knowledge at the moment of testing and cannot be used as a basis for the development of applications.

For a better assessment of the materials, you are kindly requested to contact our technical or commercial offices, which are at your disposal and will supply detailed information on the most suitable characteristics for the intended use. With reference to DPR n. 224 dated May 24, 1988 issued in accordance with EC Guide-lines 85/374, LATI Industria Termoplastici S.p.A. declines all responsibility arising from an improper use of the products described in this document.