Celanese
The chemistry inside innovation™

NILAMID XT6 GF35 BK 9005/A - PPA

Description

PPA, 35% glass fiber reinforced, easy processing
NILAMID XT6 compounds are designed for engineering applications requiring a maximum service temperature higher than that of standard polyamides. The most relevant characteristics are the following: High stiffness and strength at elevated temperatures Excellent creep behavior Small influence on mechanical properties after moisture uptake Good dimensional stability Low warpage

Physical properties	dry / cond	Unit	Test Standard
Density	**1450** / **-**	kg/m³	ISO 1183
Molding shrinkage, parallel	**0.2 - 0.5**	%	ISO 294-4, 2577
Molding shrinkage, normal	**0.5 - 0.7**	%	ISO 294-4, 2577
Humidity absorption, 23°C/50%RH	**0.4** / *	%	ISO 62

Mechanical properties	dry / cond	Unit	Test Standard
Tensile modulus	**12200** / **-**	MPa	ISO 527-2/1A
Tensile stress at break, 5mm/min	**200** / **-**	MPa	ISO 527-2/1A
Tensile strain at break, 5mm/min	**2** / **-**	%	ISO 527-2/1A
Flexural modulus, 23°C	**11500** / **-**	MPa	ISO 178
Flexural stress at max. force	**310** / **-**	MPa	ISO 178
Charpy impact strength, 23°C	**52** / **-**	kJ/m²	ISO 179/1eU
Charpy notched impact strength, 23°C	**10** / **-**	kJ/m²	ISO 179/1eA
Charpy notched impact strength, -30°C	**9.5** / **-**	kJ/m²	ISO 179/1eA

Thermal properties	dry / cond	Unit	Test Standard
Melting point, peak	**310**	°C	ISO 3146
DTUL at 1.8 MPa	**260** / *	°C	ISO 75-1, -2
Flammability @3.2mm nom. thickn.	**HB** / *	class	UL 94
Flammability @1.6mm nom. thickn.	**HB** / *	class	UL 94
Flammability @0.8mm nom. thickn.	**HB** / *	class	UL 94
Flammability @0.4mm nom. thickn.	**HB** / *	class	UL 94
Continuous service temperature	**140** / *	°C	DIN/IEC 60216-1

Electrical properties	dry / cond	Unit	Test Standard
Volume resistivity	**1E13** / **-**	Ohm*m	IEC 60093
Electric strength	**21** / **-**	kV/mm	IEC 60243-1
Comparative tracking index	**550** / **-**	-	IEC 60112