

NILAMID XT4 HH GF35 BK 9005/C - PPA

Description

PPA, 35% glass fiber reinforced, high thermal performance

Nilamid XT4 compounds are designed for electrical and electronic 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 V-0 according to the UL 94 flammability standard Excellent creep behavior Small influence on mechanical properties after moisture uptake Good dimensional stability Low warpage

Physical properties	dry / cond	Unit	Test Standard
Density	1470 / -	kg/m ³	ISO 1183
Molding shrinkage, parallel	0.3 - 0.4	%	ISO 294-4, 2577
Molding shrinkage, normal	0.7 - 0.9	%	ISO 294-4, 2577
Humidity absorption, 23°C/50%RH	0.1 / *	%	ISO 62

Mechanical properties	dry / cond	Unit	Test Standard
Tensile modulus	13000 / -	MPa	ISO 527-2/1A
Tensile stress at break, 5mm/min	185 / -	MPa	ISO 527-2/1A
Tensile strain at break, 5mm/min	1.8 / -	%	ISO 527-2/1A
Flexural modulus, 23°C	12000 / -	MPa	ISO 178
Flexural stress at max. force	295 / -	MPa	ISO 178
Charpy impact strength, 23°C	40 / -	kJ/m ²	ISO 179/1eU
Charpy impact strength, -30°C	35 / -	kJ/m ²	ISO 179/1eU
Charpy notched impact strength, 23°C	9 / -	kJ/m ²	ISO 179/1eA
Charpy notched impact strength, -30°C	8 / -	kJ/m ²	ISO 179/1eA
Izod impact notched, 23°C	8.5 / -	kJ/m ²	ISO 180/1A

Thermal properties	dry / cond	Unit	Test Standard
Melting point, peak	325	°C	ISO 3146
DTUL at 1.8 MPa	295 / *	°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

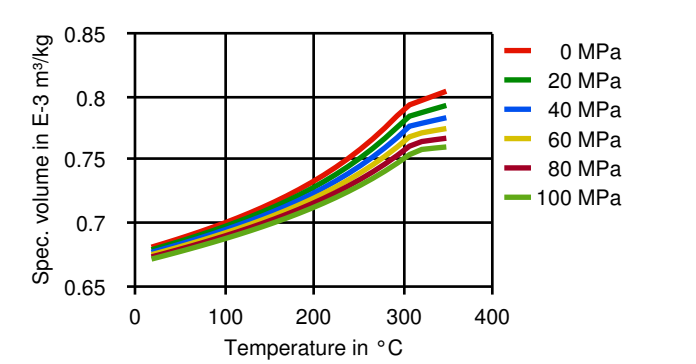
Electrical properties	dry / cond	Unit	Test Standard
Electric strength	21 / -	kV/mm	IEC 60243-1



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Diagrams

Moldflow Specific volume-temperature (pvT)



Typical injection moulding processing conditions

Temperature	Value	Unit	Test Standard
Melt temperature	≤350	°C	-

