

NILAMID® B3 H CF20

Polyamide 6

Nilit Plastics

Message:

NILAMID® B3 H CF20 is a Polyamide 6 (Nylon 6) compound, 20% carbon fiber reinforced, heat stabilized.

This compound is intended for injection molding.

NILAMID® B3 H CF20 is primarily designed for the Automotive industry. It is also suitable for Industrial & Consumer applications.

General Information			
Filler / Reinforcement	Carbon Fiber,20% Filler by Weight		
Additive	Heat Stabilizer		
Features	Heat Stabilized		
Uses	Automotive Applications		
	Consumer Applications		
	Industrial Applications		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Density (23°C)	1.22	g/cm ³	ISO 1183
Molding Shrinkage			ISO 294-4
Across Flow : 23°C	0.40	%	
Flow : 23°C	0.20	%	
Water Absorption			ISO 62
23°C, 24 hr	1.1	%	
Saturation, 23°C	6.5	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus (23°C)	14500	MPa	ISO 527-2
Tensile Stress (Yield, 23°C)	170	MPa	ISO 527-2
Tensile Strain (Break, 23°C)	2.0	%	ISO 527-2
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			ISO 179/1eA
-30°C	5.0	kJ/m ²	
23°C	6.0	kJ/m ²	
Charpy Unnotched Impact Strength			ISO 179/1eU
23°C	65	kJ/m ²	
30°C	55	kJ/m ²	
Notched Izod Impact Strength			ISO 180/A
-30°C	6.0	kJ/m ²	
23°C	7.0	kJ/m ²	
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature			

0.45 MPa, Unannealed	216	°C	ISO 75-2/B
1.8 MPa, Unannealed	200	°C	ISO 75-2/A
Continuous Use Temperature ¹	120	°C	IEC 60216
Ball Pressure Test			IEC 60695-10-2
125°C	Pass		
165°C	Pass		
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity ²	1.0E+3	ohms	IEC 60093
Volume Resistivity (23°C)	1.0E+5	ohms·cm	IEC 60093
Electric Strength (2.00 mm)	2.3	kV/mm	IEC 60243-1
Comparative Tracking Index (3.20 mm, Solution A)	< 100	V	IEC 60112
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.800 mm	HB		
1.60 mm	HB		
3.20 mm	HB		
Oxygen Index	25	%	ISO 4589-2
NOTE			
1.	20000 hr		
2.	23°C		

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