LNP™ THERMOCOMP™ COMPOUND PF006S

PF-1006 HS
REGION EUROPE

DESCRIPTION

LNP THERMOCOMP* PF006S is a compound based on Nylon 6 resin containing 30% Glass Fiber. Added features of this material include: Heat Stabilized.

TYPICAL PROPERTY VALUES

Revision 20190925

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, break, 5 mm/min	160	MPa	ISO 527
Tensile Strain, break, 5 mm/min	3.8	%	ISO 527
Tensile Modulus, 1 mm/min	9500	MPa	ISO 527
Flexural Stress, break, 2 mm/min	230	MPa	ISO 178
Flexural Modulus, 2 mm/min	8000	MPa	ISO 178
Hardness, Rockwell L	113	-	ISO 2039-2
IMPACT			
Izod Impact, notched 80*10*4 +23°C	11	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -20°C	10	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -30°C	9	kJ/m²	ISO 180/1A
Izod Impact, notched 80*10*4 -40°C	9	kJ/m²	ISO 180/1A
Charpy 23°C, V-notch Edgew 80*10*4 sp=62mm	11	kJ/m²	ISO 179/1eA
Charpy -30°C, V-notch Edgew 80*10*4 sp=62mm	9	kJ/m²	ISO 179/1eA
Charpy 23°C, Unnotch Edgew 80*10*4 sp=62mm	90	kJ/m²	ISO 179/1eU
Charpy -30°C, Unnotch Edgew 80*10*4 sp=62mm	75	kJ/m²	ISO 179/1eU
THERMAL			
Thermal Conductivity	0.33	W/m-°C	ISO 8302
CTE, 23°C to 60°C, flow	2.5E-05	1/°C	ISO 11359-2
CTE, 23°C to 60°C, xflow	8.5E-05	1/°C	ISO 11359-2
Ball Pressure Test, 125°C +/- 2°C	PASSES	-	IEC 60695-10-2
Vicat Softening Temp, Rate B/50	215	°C	ISO 306
Vicat Softening Temp, Rate B/120	215	°C	ISO 306
HDT/Be, 0.45MPa Edgew 120*10*4 sp=100mm	220	°C	ISO 75/Be
HDT/Ae, 1.8 MPa Edgew 120*10*4 sp=100mm	205	°C	ISO 75/Ae
Relative Temp Index, Elec	65	°C	UL 746B
Relative Temp Index, Mech w/impact	65	°C	UL 746B
Relative Temp Index, Mech w/o impact	65	°C	UL 746B
PHYSICAL			
Mold Shrinkage on Tensile Bar, flow	0.2 – 0.4	%	SABIC method
Density	1.36	g/cm³	ISO 1183
Water Absorption, (23°C/sat)	6.5	%	ISO 62
Moisture Absorption (23°C / 50% RH)	1.7	%	ISO 62
ELECTRICAL			

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Volume Resistivity	>1.E+16	Ohm-cm	IEC 60093
Surface Resistivity, ROA	>1.E+16	Ohm	IEC 60093
Dielectric Strength, in oil, 3.2 mm	20	kV/mm	IEC 60243-1
Relative Permittivity, 1 MHz	3.3	-	IEC 60250
Dissipation Factor, 50/60 Hz	0.0065	-	IEC 60250
Dissipation Factor, 1 MHz	0.016	-	IEC 60250
Comparative Tracking Index	500	V	IEC 60112
Comparative Tracking Index, M	375	V	IEC 60112
Relative Permittivity, 50/60 Hz	3.6	-	IEC 60250
FLAME CHARACTERISTICS			
UL Recognized, 94HB Flame Class Rating	0.75	mm	UL 94
UL Recognized, 94HB Flame Class Rating 2nd value	3	mm	UL 94
Glow Wire Flammability Index 650°C, passes at	2	mm	IEC 60695-2-12
Oxygen Index (LOI)	25	%	ISO 4589
FMVSS Burning Speed, thickness 2 mm	6	mm/min	FMVSS 302
FMVSS Burning Speed, thickness 3 mm	2	mm/min	FMVSS 302
INJECTION MOLDING			
Drying Temperature	75 – 85	°C	
Drying Time	4 – 6	hrs	
Maximum Moisture Content	0.2	%	
Melt Temperature	250 – 280	°C	
Nozzle Temperature	240 – 270	°C	
Front - Zone 3 Temperature	250 – 280	°C	
Middle - Zone 2 Temperature	250 – 280	°C	
Rear - Zone 1 Temperature	250 – 280	°C	
Hopper Temperature	60 – 80	°C	
Mold Temperature	70 – 120	°C	

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