LNP™ THERMOCOMP™ COMPOUND 9X10312

DESCRIPTION

9X10312 is 50% glass fiber reinforced, impact modified nylon material. High modulus, high flow and good ductility, Low Moisture Absorption.

TYPICAL PROPERTY VALUES

Revision 20191216

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, brk, Type I, 5 mm/min	212	MPa	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	2.8	%	ASTM D 638
Tensile Modulus, 5 mm/min	15000	MPa	ASTM D 638
Flexural Stress	310	MPa	ASTM D 790
Flexural Modulus	13000	MPa	ASTM D 790
IMPACT			
Izod Impact, notched, 23°C	150	J/m	ASTM D 256
Instrumented Impact Total Energy, 23°C	12	J	ASTM D 3763
Charpy 23°C, V-notch Edgew 80*10*3 sp=62mm	16	kJ/m²	ISO 179/1eA
THERMAL			
HDT, 1.82 MPa, 3.2mm, unannealed	250	°C	ASTM D 648
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			
Specific Gravity	1.55	-	ASTM D 792
Mold Shrinkage, flow, 3.2 mm	0.12	%	SABIC method
Mold Shrinkage, xflow, 3.2 mm	0.44	%	SABIC method
Water Absorption, (23°C/sat)	0.8	%	ISO 62
Moisture Absorption (23°C / 50% RH)	0.15	%	ISO 62
Melt Volume Rate, MVR at 300°C/2.16 kg	15	cm³/10 min	ISO 1133
ELECTRICAL			
Dielectric Constant (Dk), 1.1 GHz	4	-	ASTM ES 7-83
Dissipation Factor (Df), 1.1 GHz	0.01	-	ASTM ES 7-83
FLAME CHARACTERISTICS [(1)]			
UL Yellow Card Link	E207780-101337256	-	-
UL Recognized, 94HB Flame Class Rating	≥0.8	mm	UL 94
INJECTION MOLDING			
Drying Temperature	80	°C	
Drying Time	4	hrs	
Maximum Moisture Content	0.15 – 0.25	%	
Melt Temperature	280 – 305	°C	
Front - Zone 3 Temperature	295 – 305	°C	
Middle - Zone 2 Temperature	280 – 295	°C	
Rear - Zone 1 Temperature	265 – 275	°C	

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Mold Temperature	95 – 110	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	rpm	

(1) UL Ratings shown on the technical datasheet might not cover the full range of thicknesses and colors. For details, please see the UL Yellow Card.

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