LNP™ THERMOCOMP™ COMPOUND AF004AHP

AF-1004 HC

DESCRIPTION

LNP* THERMOCOMP* AF004AHP is a compound based on ABS resin containing 20% Glass Fiber. Added feature of this grade is: Healthcare.

TYPICAL PROPERTY VALUES

Revision 20191216

PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
MECHANICAL			
Tensile Stress, brk, Type I, 5 mm/min	69	MPa	ASTM D 638
Tensile Strain, brk, Type I, 5 mm/min	1.7	%	ASTM D 638
Tensile Modulus, 5 mm/min	6240	MPa	ASTM D 638
Flexural Stress, yld, 1.3 mm/min, 50 mm span	101	MPa	ASTM D 790
Flexural Stress, brk, 1.3 mm/min, 50 mm span	98	MPa	ASTM D 790
Flexural Modulus, 1.3 mm/min, 50 mm span	5860	MPa	ASTM D 790
Tensile Stress, break, 5 mm/min	66	MPa	ISO 527
Tensile Strain, break, 5 mm/min	1.6	%	ISO 527
Tensile Modulus, 1 mm/min	5950	MPa	ISO 527
Flexural Stress	98	MPa	ISO 178
Flexural Modulus, 2 mm/min	5520	MPa	ISO 178
IMPACT			
Izod Impact, unnotched, 23°C	263	J/m	ASTM D 4812
Izod Impact, notched, 23°C	58	J/m	ASTM D 256
Multiaxial Impact	2	J	ISO 6603
Instrumented Impact Total Energy, 23°C	10	J	ASTM D 3763
Izod Impact, unnotched 80*10*4 +23°C	17	kJ/m²	ISO 180/1U
Izod Impact, notched 80*10*4 +23°C	5	kJ/m²	ISO 180/1A
THERMAL			
HDT, 0.45 MPa, 3.2 mm, unannealed	103	°C	ASTM D 648
HDT, 1.82 MPa, 3.2mm, unannealed	99	°C	ASTM D 648
CTE, -30°C to 30°C, flow	4.2E-05	1/°C	ASTM D 696
CTE, -30°C to 30°C, xflow	8.6E-05	1/°C	ASTM D 696
HDT/Bf, 0.45 MPa Flatw 80*10*4 sp=64mm	104	°C	ISO 75/Bf
HDT/Af, 1.8 MPa Flatw 80*10*4 sp=64mm	99	°C	ISO 75/Af
PHYSICAL			
Specific Gravity	1.23	-	ASTM D 792
Density	1.23	g/cm³	ASTM D 792
Moisture Absorption, 50% RH, 24 hrs	0.16	%	ASTM D 570
Mold Shrinkage, flow, 24 hrs	0.3	%	ASTM D 955
Mold Shrinkage, xflow, 24 hrs	0.55	%	ASTM D 955
Moisture Absorption (23°C / 50% RH)	0.26	%	ISO 62
INJECTION MOLDING			
Drying Temperature	80	°C	

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PROPERTIES	TYPICAL VALUES	UNITS	TEST METHODS
Drying Time	4	hrs	
Maximum Moisture Content	0.05 – 0.1	%	
Melt Temperature	260	°C	
Front - Zone 3 Temperature	265 – 275	°C	
Middle - Zone 2 Temperature	230 – 245	°C	
Rear - Zone 1 Temperature	205 – 215	°C	
Mold Temperature	70 – 80	°C	
Back Pressure	0.2 – 0.3	MPa	
Screw Speed	30 – 60	rpm	

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