

LNP™ THERMOCOMP™ AF004AHP

compound

Acrylonitrile Butadiene Styrene

SABIC Innovative Plastics

Message:

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

Also known as: LNP* THERMOCOMP* Compound AF-1004 HC

Product reorder name: AF004AHP

General Information			
Filler / Reinforcement	Glass Fiber,20% Filler by Weight		
Uses	Medical/Healthcare Applications		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.23	g/cm ³	ASTM D792
Molding Shrinkage			ASTM D955
Flow : 24 hr	0.30	%	
Across Flow : 24 hr	0.55	%	
Water Absorption			
24 hr, 50% RH	0.16	%	ASTM D570
Equilibrium, 23°C, 50% RH	0.26	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	6250	MPa	ASTM D638
--	5960	MPa	ISO 527-2/1
Tensile Strength			
Break ²	69.0	MPa	ASTM D638
Break	66.0	MPa	ISO 527-2/5
Tensile Elongation			
Break ³	1.7	%	ASTM D638
Break	1.6	%	ISO 527-2/5
Flexural Modulus			
50.0 mm Span ⁴	5860	MPa	ASTM D790
-- ⁵	5530	MPa	ISO 178
Flexural Stress			
--	98.8	MPa	ISO 178
Yield, 50.0 mm Span ⁶	101	MPa	ASTM D790
Break, 50.0 mm Span ⁷	98.0	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method

Notched Izod Impact			
23°C	59	J/m	ASTM D256
23°C ⁸	5.5	kJ/m ²	ISO 180/1A
Unnotched Izod Impact			
23°C	260	J/m	ASTM D4812
23°C ⁹	18	kJ/m ²	ISO 180/1U
Instrumented Dart Impact			
23°C, Total Energy	10.9	J	ASTM D3763
--	2.48	J	ISO 6603-2
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 3.20 mm	103	°C	ASTM D648
0.45 MPa, Unannealed, 64.0 mm Span ¹⁰	104	°C	ISO 75-2/Bf
1.8 MPa, Unannealed, 3.20 mm	99.0	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span ¹¹	99.0	°C	ISO 75-2/Af
CLTE			ASTM D696
Flow : -30 to 30°C	4.2E-5	cm/cm/°C	
Transverse : -30 to 30°C	8.6E-5	cm/cm/°C	
Injection	Nominal Value	Unit	
Drying Temperature	82.2	°C	
Drying Time	4.0	hr	
Suggested Max Moisture	0.050 to 0.10	%	
Rear Temperature	204 to 216	°C	
Middle Temperature	232 to 243	°C	
Front Temperature	266 to 277	°C	
Processing (Melt) Temp	260	°C	
Mold Temperature	71.1 to 82.2	°C	
Back Pressure	0.172 to 0.344	MPa	
Screw Speed	30 to 60	rpm	
NOTE			
1.	5.0 mm/min		
2.	Type I, 5.0 mm/min		
3.	Type I, 5.0 mm/min		
4.	1.3 mm/min		
5.	2.0 mm/min		
6.	1.3 mm/min		
7.	1.3 mm/min		
8.	80*10*4		
9.	80*10*4		
10.	80*10*4 mm		
11.	80*10*4 mm		

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