

LNP™ THERMOCOMP™ DF002H compound

Polycarbonate

SABIC Innovative Plastics

Message:

LNP THERMOCOMP* DF002H is a compound based on Polycarbonate resin containing 10% Glass Fiber. Added feature includes: Healthcare.

Also known as: LNP* THERMOCOMP* Compound DF-1002 HC

Product reorder name: DF002H

General Information			
Filler / Reinforcement	Glass Fiber,10% Filler by Weight		
Uses	Medical/Healthcare Applications		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Density	1.29	g/cm ³	ISO 1183, ASTM D792
Molding Shrinkage			ASTM D955
Flow : 24 hr	0.40 to 0.60	%	
Across Flow : 24 hr	0.60 to 0.80	%	
Water Absorption			
24 hr, 50% RH	0.14	%	ASTM D570
Equilibrium, 23°C, 50% RH	0.20	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	4250	MPa	ASTM D638
--	4170	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	81.0	MPa	ASTM D638
Yield	80.0	MPa	ISO 527-2/5
Break ³	75.0	MPa	ASTM D638
Break	74.0	MPa	ISO 527-2/5
Tensile Elongation			
Yield ⁴	3.9	%	ASTM D638
Yield	3.8	%	ISO 527-2/5
Break ⁵	5.6	%	ASTM D638
Break	5.7	%	ISO 527-2/5
Flexural Modulus			
50.0 mm Span ⁶	4110	MPa	ASTM D790
-- ⁷	3960	MPa	ISO 178
Flexural Strength ⁸ (Yield, 50.0 mm Span)	138	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			
23°C	81	J/m	ASTM D256

23°C ⁹	8.7	kJ/m ²	ISO 180/1A
Unnotched Izod Impact			
23°C	880	J/m	ASTM D4812
23°C ¹⁰	55	kJ/m ²	ISO 180/1U
Instrumented Dart Impact			
23°C, Total Energy	18.4	J	ASTM D3763
--	10.5	J	ISO 6603-2
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, Unannealed, 3.20 mm	146	°C	
1.8 MPa, Unannealed, 3.20 mm	141	°C	
CLTE			ASTM D696
Flow : -30 to 30°C	4.6E-5	cm/cm/°C	
Transverse : -30 to 30°C	5.3E-5	cm/cm/°C	
Injection	Nominal Value	Unit	
Drying Temperature	121	°C	
Drying Time	4.0	hr	
Suggested Max Moisture	0.020	%	
Rear Temperature	293 to 304	°C	
Middle Temperature	310 to 321	°C	
Front Temperature	321 to 332	°C	
Processing (Melt) Temp	304 to 327	°C	
Mold Temperature	82.2 to 110	°C	
Back Pressure	0.172 to 0.344	MPa	
Screw Speed	30 to 60	rpm	
NOTE			
1.	50 mm/min		
2.	Type I, 5.0 mm/min		
3.	Type I, 5.0 mm/min		
4.	Type I, 5.0 mm/min		
5.	Type I, 5.0 mm/min		
6.	1.3 mm/min		
7.	2.0 mm/min		
8.	1.3 mm/min		
9.	80*10*4		
10.	80*10*4		

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