

LNP™ THERMOCOMP™ DF006HL compound

Polycarbonate

SABIC Innovative Plastics

Message:

LNP THERMOCOMP* DF006HL is a compound based on Polycarbonate resin containing 30% Glass Fiber. Added features of this material include: Low Extractible, Healthcare.

Also known as: LNP* THERMOCOMP* Compound DF-1006 LE

Product reorder name: DF006HL

General Information			
Filler / Reinforcement	Glass Fiber,30% Filler by Weight		
Features	Low Extractables		
Uses	Medical/Healthcare Applications		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.43	g/cm ³	ASTM D792
Molding Shrinkage			ASTM D955
Flow : 24 hr	0.10 to 0.40	%	
Across Flow : 24 hr	0.50 to 0.80	%	
Water Absorption			
24 hr, 50% RH	0.12	%	ASTM D570
Equilibrium, 23°C, 50% RH	0.15	%	ISO 62
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	8340	MPa	ASTM D638
--	7800	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	115	MPa	ASTM D638
Yield	110	MPa	ISO 527-2/5
Break	127	MPa	ASTM D638
Break ³	114	MPa	ASTM D638
Break	110	MPa	ISO 527-2/5
Tensile Elongation			
Yield ⁴	2.8	%	ASTM D638
Yield	2.8	%	ISO 527-2/5
Break	2.7	%	ASTM D638
Break ⁵	3.2	%	ASTM D638
Break	3.0	%	ISO 527-2/5
Flexural Modulus			
50.0 mm Span ⁶	7500	MPa	ASTM D790
--	8360	MPa	ASTM D790

-- ⁷	7200	MPa	ISO 178
Flexural Strength			
--	200	MPa	ASTM D790
--	174	MPa	ISO 178
Yield, 50.0 mm Span ⁸	183	MPa	ASTM D790
Break, 50.0 mm Span ⁹	180	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			
23°C	170	J/m	ASTM D256
23°C ¹⁰	16	kJ/m ²	ISO 180/1A
Unnotched Izod Impact			
23°C	830	J/m	ASTM D4812
23°C ¹¹	52	kJ/m ²	ISO 180/1U
Instrumented Dart Impact			
23°C, Total Energy	27.6	J	ASTM D3763
--	8.20	J	ISO 6603-2
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 3.20 mm	147	°C	ASTM D648
0.45 MPa, Unannealed, 64.0 mm Span ¹²	147	°C	ISO 75-2/Bf
1.8 MPa, Unannealed, 3.20 mm	144	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span ¹³	143	°C	ISO 75-2/Af
CLTE			ASTM E831
Flow : -40 to 40°C	3.2E-5	cm/cm/°C	
Transverse : -40 to 40°C	6.9E-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.	1.3 mm/min
10.	80*10*4
11.	80*10*4
12.	80*10*4 mm
13.	80*10*4 mm

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