

LNP™ THERMOCOMP™ DF005 compound

Polycarbonate

SABIC Innovative Plastics

Message:

LNP THERMOCOMP DF005 is a compound based on Polycarbonate containing 25% Glass Fiber.

Also known as: LNP* THERMOCOMP* Compound DF-1005

Product reorder name: DF005

General Information			
UL YellowCard	E121562-101282746	E121562-101344533	
Filler / Reinforcement	Glass Fiber,25% Filler by Weight		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.40	g/cm³	ASTM D792
Molding Shrinkage			ASTM D955
Flow : 24 hr	0.20 to 0.50	%	
Across Flow : 24 hr	0.50 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	8340	MPa	ASTM D638
--	7890	MPa	ISO 527-2/1
Tensile Strength			
Yield ²	110	MPa	ASTM D638
Yield	109	MPa	ISO 527-2/5
Break ³	108	MPa	ASTM D638
Break	108	MPa	ISO 527-2/5
Tensile Elongation			
Yield ⁴	3.0	%	ASTM D638
Yield	2.7	%	ISO 527-2/5
Break ⁵	3.4	%	ASTM D638
Break	3.3	%	ISO 527-2/5
Flexural Modulus			
50.0 mm Span ⁶	7020	MPa	ASTM D790
-- ⁷	6990	MPa	ISO 178
Flexural Stress			
--	180	MPa	ISO 178
Yield, 50.0 mm Span ⁸	180	MPa	ASTM D790
Break, 50.0 mm Span ⁹	180	MPa	ASTM D790

Impact	Nominal Value	Unit	Test Method
Notched Izod Impact			
23°C	110	J/m	ASTM D256
23°C ¹⁰	10	kJ/m ²	ISO 180/1A
Unnotched Izod Impact			
23°C	900	J/m	ASTM D4812
23°C ¹¹	55	kJ/m ²	ISO 180/1U
Instrumented Dart Impact			
23°C, Total Energy	16.4	J	ASTM D3763
--	3.04	J	ISO 6603-2
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 3.20 mm	144	°C	ASTM D648
0.45 MPa, Unannealed, 64.0 mm Span ¹²	145	°C	ISO 75-2/Bf
1.8 MPa, Unannealed, 3.20 mm	141	°C	ASTM D648
1.8 MPa, Unannealed, 64.0 mm Span ¹³	141	°C	ISO 75-2/Af
CLTE			ASTM D696
Flow : -30 to 30°C	2.0E-6	cm/cm/°C	
Transverse : -30 to 30°C	7.0E-6	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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