

LNP™ THERMOCOMP™ D351 compound

Polycarbonate

SABIC Innovative Plastics Asia Pacific

Message:

LNP THERMOCOMP D351 (experimental grade name as EXTC8143) is a compound based on Polycarbonate resin containing Glass Fiber, Flame Retardant. Added features of this material include: High modulus, good flatness, good ductility, Non-Brominated & Non-Chlorinated Flame Retardant.

General Information			
UL YellowCard	E207780-101265024		
Filler / Reinforcement	Glass Fiber		
Features	Bromine Free		
	Chlorine Free		
	Ductile		
	Flame Retardant		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Density	1.43	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR) (300°C/2.16 kg)	25	g/10 min	ASTM D1238
Melt Volume-Flow Rate (MVR) (300°C/2.16 kg)	20.0	cm ³ /10min	ISO 1133
Molding Shrinkage			ASTM D955
Flow : 24 hr	0.10 to 0.30	%	
Across Flow : 24 hr	0.10 to 0.30	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	9050	MPa	ASTM D638
--	9080	MPa	ISO 527-2/1
Tensile Strength			
Break ²	120	MPa	ASTM D638
Break	125	MPa	ISO 527-2/5
Tensile Elongation ³ (Break)	2.4	%	ASTM D638
Flexural Modulus			
50.0 mm Span ⁴	8400	MPa	ASTM D790
-- ⁵	7520	MPa	ISO 178
Flexural Stress			
--	169	MPa	ISO 178
Break, 50.0 mm Span ⁶	179	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁷ (23°C)	15	kJ/m ²	ISO 179/1eA

Charpy Unnotched Impact Strength ⁸ (23°C)	39	kJ/m ²	ISO 179/1eU
Notched Izod Impact (23°C)	150	J/m	ASTM D256
Unnotched Izod Impact (23°C)	510	J/m	ASTM D4812
Instrumented Dart Impact (23°C, Energy at Peak Load)	24.0	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load (1.8 MPa, Unannealed, 3.20 mm)	116	°C	ASTM D648
CLTE			ASTM E831
Flow : -40 to 40°C	2.0E-5	cm/cm/°C	
Transverse : -40 to 40°C	6.7E-5	cm/cm/°C	
Flammability	Nominal Value		Test Method
Flame Rating (0.800 mm)	V-0		UL 94
Injection	Nominal Value	Unit	
Drying Temperature	110	°C	
Drying Time	3.0 to 6.0	hr	
Suggested Max Moisture	0.020	%	
Rear Temperature	260 to 280	°C	
Middle Temperature	270 to 290	°C	
Front Temperature	280 to 300	°C	
Nozzle Temperature	285 to 305	°C	
Processing (Melt) Temp	285 to 310	°C	
Mold Temperature	80.0 to 110	°C	
Back Pressure	0.100 to 0.300	MPa	
Screw Speed	50 to 90	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.	80*10*4 sp=62mm		
8.	80*10*4 sp=62mm		

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Recommended distributors for this material

Susheng Import & Export Trading Co.,Ltd.

Tel: +86 21 5895 8519

Phone: +86 13424755533

Email: sales@su-jiao.com

No. 215, Lianhe North Road, Fengxian District, Shanghai, China

