

LNP™ COLORCOMP™ 310C compound

Polybutylene Terephthalate

SABIC Innovative Plastics

Message:

LNP* COLORCOMP* 310C is an unreinforced compound based on PBT resin. Added feature of this grade is a typical viscosity of 5000-7000.

General Information			
UL YellowCard	E121562-102799036		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.31	g/cm ³	ASTM D792
Specific Volume	0.770	cm ³ /g	ASTM D792
Molding Shrinkage			Internal method
Flow ¹	0.90 - 1.6	%	Internal method
Flow ²	1.5 - 2.3	%	Internal method
Transverse flow ³	1.0 - 1.7	%	Internal method
Transverse flow ⁴	1.6 - 2.4	%	Internal method
Water Absorption (24 hr)	0.080	%	ASTM D570
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	117		ASTM D785
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength ⁵			ASTM D638
Yield	51.7	MPa	ASTM D638
Fracture	51.7	MPa	ASTM D638
Tensile Elongation ⁶ (Break)	300	%	ASTM D638
Flexural Modulus ⁷ (50.0 mm Span)	2340	MPa	ASTM D790
Flexural Strength ⁸			ASTM D790
Yield, 50.0mm span	82.7	MPa	ASTM D790
Fracture, 50.0mm span	82.7	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Notched Izod Impact (23°C)	53	J/m	ASTM D256
Unnotched Izod Impact (23°C)	1600	J/m	ASTM D4812
Dart Drop Impact			ASTM D3029
23°C	40.7	J	ASTM D3029
23°C ⁹	40.7	J	ASTM D3029
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
0.45 MPa, unannealed, 6.40mm	154	°C	ASTM D648
1.8 MPa, unannealed, 6.40mm	54.4	°C	ASTM D648
CLTE - Flow			ASTM E831

-40 to 40°C	8.1E-5	cm/cm/°C	ASTM E831
60 to 138°C	1.4E-4	cm/cm/°C	ASTM E831
RTI Elec	120	°C	UL 746
RTI Imp	120	°C	UL 746
RTI	140	°C	UL 746
Electrical	Nominal Value	Unit	Test Method
Volume Resistivity	> 4.0E+16	ohms·cm	ASTM D257
Dielectric Strength			ASTM D149
1.60 mm, in Air	23	kV/mm	ASTM D149
1.60 mm, in Oil	23	kV/mm	ASTM D149
3.20 mm, in Air	16	kV/mm	ASTM D149
3.20 mm, in Oil	16	kV/mm	ASTM D149
Dielectric Constant			ASTM D150
100 Hz	3.30		ASTM D150
1 MHz	3.10		ASTM D150
Dissipation Factor			ASTM D150
100 Hz	2.0E-3		ASTM D150
1 MHz	0.020		ASTM D150
Arc Resistance ¹⁰	PLC 5		ASTM D495
Comparative Tracking Index (CTI)	PLC 0		UL 746
High Voltage Arc Tracking Rate (HVTR)	PLC 1		UL 746
Flammability	Nominal Value	Unit	Test Method
Flame Rating (1.5 mm)	HB		UL 94
Fill Analysis	Nominal Value	Unit	Test Method
Melt Viscosity	600	Pa·s	Internal method
Injection	Nominal Value	Unit	
Drying Temperature	121	°C	
Drying Time	3.0 - 4.0	hr	
Drying Time, Maximum	12	hr	
Suggested Max Moisture	0.020	%	
Suggested Shot Size	40 - 80	%	
Rear Temperature	232 - 249	°C	
Middle Temperature	238 - 254	°C	
Front Temperature	243 - 260	°C	
Nozzle Temperature	238 - 254	°C	
Processing (Melt) Temp	243 - 260	°C	
Mold Temperature	49 - 77	°C	
Back Pressure	0.345 - 0.689	MPa	
Screw Speed	50 - 100	rpm	
Vent Depth	0.013 - 0.025	mm	
NOTE			
1.	0.75 to 2.3 mm		

2.	2.3 to 4.6 mm
3.	0.75 to 2.3 mm
4.	2.3 to 4.6 mm
5.	Type 1, 50mm/min
6.	Type 1, 50mm/min
7.	1.3 mm/min
8.	1.3 mm/min
9.	Modified
10.	Tungsten electrode

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