

LNP™ COLORCOMP™ 420C compound

Polybutylene Terephthalate

SABIC Innovative Plastics

Message:

LNP* COLORCOMP* 420C is a compound based on PBT resin containing 30% glass. Added features of this grade include: excellent strength, stiffness and dimensional stability, high heat resistance. Good for appliance handles, spotlights, electric motors, connectors.

Also known as: LNP* COLORCOMP* Compound 420

Product reorder name: 420C

General Information			
UL YellowCard	E121562-102809596		
Filler / Reinforcement	Glass fiber reinforced material, 30% filler by weight		
Features	High Dimensional Stability		
	Rigidity, high		
	High strength		
	Heat resistance, high		
Uses	Handle		
	Electrical/Electronic Applications		
	Home appliance components		
	Connector		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.53	g/cm ³	ASTM D792
Specific Volume	0.660	cm ³ /g	ASTM D792
Filler Content	30	%	ASTM D229
Melt Mass-Flow Rate (MFR) (250°C/2.16 kg)	17	g/10 min	ISO 1133
Melt Volume-Flow Rate (MVR) (250°C/2.16 kg)	13.0	cm ³ /10min	ISO 1133
Molding Shrinkage			Internal method
Flow ¹	0.30 - 0.50	%	Internal method
Flow ²	0.50 - 0.80	%	Internal method
Flow ³	0.30 - 0.70	%	Internal method
Flow: 3.20mm	0.30 - 0.80	%	Internal method
Transverse flow ⁴	0.40 - 0.60	%	Internal method
Transverse flow ⁵	0.60 - 0.90	%	Internal method
Transverse flow ⁶	0.50 - 1.0	%	Internal method
Transverse flow: 3.20mm	0.50 - 1.0	%	Internal method
Water Absorption			
24 hr	0.090	%	ASTM D570

Equilibrium, 23°C, 50% RH	0.080	%	ISO 62
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness			
Class r	118		ASTM D785
R scale	118		ISO 2039-2
Ball Indentation Hardness (H 358/30)	122	MPa	ISO 2039-1
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ⁷	9300	MPa	ASTM D638
--	9300	MPa	ISO 527-2/1
Tensile Strength			
Yield ⁸	120	MPa	ASTM D638
Yield	125	MPa	ISO 527-2/5
Fracture ⁹	120	MPa	ASTM D638
Fracture	125	MPa	ISO 527-2/5
Tensile Elongation			
Yield ¹⁰	2.7	%	ASTM D638
Yield	2.0	%	ISO 527-2/5
Fracture ¹¹	2.7	%	ASTM D638
Fracture	2.0	%	ISO 527-2/5
Flexural Modulus			
50.0mm span ¹²	7580	MPa	ASTM D790
-- ¹³	8500	MPa	ISO 178
Flexural Stress			
--	195	MPa	ISO 178
Yield, 50.0mm span ¹⁴	195	MPa	ASTM D790
Fracture, 50.0mm span ¹⁵	190	MPa	ASTM D790
Taber Abrasion Resistance (1000 Cycles, 1000 g, CS-17 Wheel)	19.0	mg	ASTM D1044
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ¹⁶			ISO 179/1eA
-30°C	5.0	kJ/m ²	ISO 179/1eA
23°C	5.0	kJ/m ²	ISO 179/1eA
Charpy Unnotched Impact Strength ¹⁷			ISO 179/1eU
-30°C	45	kJ/m ²	ISO 179/1eU
23°C	45	kJ/m ²	ISO 179/1eU
Notched Izod Impact			
-30°C	80	J/m	ASTM D256
23°C	85	J/m	ASTM D256
-30°C ¹⁸	7.0	kJ/m ²	ISO 180/1A
23°C ¹⁹	8.0	kJ/m ²	ISO 180/1A
Unnotched Izod Impact			

23°C	800	J/m	ASTM D4812
-30°C ²⁰	45	kJ/m ²	ISO 180/1U
23°C ²¹	45	kJ/m ²	ISO 180/1U
Instrumented Dart Impact (23°C, Total Energy)	8.00	J	ASTM D3763
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, unannealed, 3.20mm	220	°C	ASTM D648
0.45 MPa, unannealed, 6.40mm	216	°C	ASTM D648
0.45 MPa, unannealed, 64.0mm span ²²	217	°C	ISO 75-2/Bf
1.8 MPa, unannealed, 3.20mm	203	°C	ASTM D648
1.8 MPa, unannealed, 6.40mm	207	°C	ASTM D648
1.8 MPa, unannealed, 64.0mm span ²³	204	°C	ISO 75-2/Af
Vicat Softening Temperature			
--	215	°C	ASTM D1525, ISO 306/B50, ISO 306/B120 ²⁴
--	223	°C	ISO 306/A50
Ball Pressure Test (125°C)	Pass		IEC 60695-10-2
Linear thermal expansion coefficient			
Flow: -40 to 40°C	2.5E-5	cm/cm/°C	ASTM E831, ISO 11359-2
Flow: 60 to 138°C	2.5E-5	cm/cm/°C	ASTM E831
Lateral: -40 to 40°C	1.2E-4	cm/cm/°C	ASTM E831, ISO 11359-2
Thermal Conductivity	0.19	W/m/K	ISO 8302
RTI Elec	140	°C	UL 746
RTI Imp	140	°C	UL 746
RTI	140	°C	UL 746
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+15	ohms	IEC 60093
Volume Resistivity			
--	> 3.2E+16	ohms·cm	ASTM D257
--	> 1.0E+15	ohms·cm	IEC 60093
Dielectric Strength			
1.60 mm, in Oil	25	kV/mm	ASTM D149
3.20 mm, in Air	19	kV/mm	ASTM D149
0.800mm, in oil	28	kV/mm	IEC 60243-1
1.00 mm ²⁵	19	kV/mm	IEC 60243-1
1.60mm, in oil	24	kV/mm	IEC 60243-1
3.20mm, in oil	16	kV/mm	IEC 60243-1
Dielectric Constant			
100 Hz	3.80		ASTM D150
1 MHz	3.70		ASTM D150
50 Hz	3.10		IEC 60250
60 Hz	3.10		IEC 60250

1 MHz	3.10		IEC 60250
Dissipation Factor			
100 Hz	2.0E-3		ASTM D150
1 MHz	0.020		ASTM D150
50 Hz	1.0E-3		IEC 60250
60 Hz	1.0E-3		IEC 60250
100 Hz	1.0E-3		IEC 60250
1 MHz	0.010		IEC 60250
Arc Resistance ²⁶	PLC 5		ASTM D495
Comparative Tracking Index (CTI)	PLC 0		UL 746
Comparative Tracking Index	300	V	IEC 60112
High Voltage Arc Tracking Rate (HVTR)	PLC 1		UL 746
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.8 mm)	HB		UL 94
Glow Wire Flammability Index (1.0 mm)	750	°C	IEC 60695-2-12
Oxygen Index	19	%	ASTM D2863
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	238 - 254	°C	
Middle Temperature	243 - 260	°C	
Front Temperature	249 - 266	°C	
Nozzle Temperature	243 - 260	°C	
Processing (Melt) Temp	249 - 266	°C	
Mold Temperature	66 - 88	°C	
Back Pressure	0.345 - 0.689	MPa	
Screw Speed	50 - 80	rpm	
Vent Depth	0.025 - 0.038	mm	
NOTE			
1.	1.5 to 3.2 mm		
2.	3.2 to 4.6 mm		
3.	Tensile Bar		
4.	1.5 to 3.2 mm		
5.	3.2-4.6 mm		
6.	Tensile Bar		
7.	5.0 mm/min		
8.	Type 1, 5.0 mm/min		
9.	Type 1, 5.0 mm/min		
10.	Type 1, 5.0 mm/min		

11.	Type 1, 5.0 mm/min
12.	1.3 mm/min
13.	2.0 mm/min
14.	1.3 mm/min
15.	1.3 mm/min
16.	80*10*4 sp=62mm
17.	80*10*4 sp=62mm
18.	80*10*4
19.	80*10*4
20.	80*10*4
21.	80*10*4
22.	80*10*4 mm
23.	80*10*4 mm
24.	标准 B (120°C/h), 载荷2 (50N)
25.	Short-Time
26.	Tungsten electrode

The information and data on this page are provided by manufacturers and document providers. SHANGHAI SUSHENG assumes no legal liability. It is strongly recommended to verify all technical data with material suppliers before final material selection. All rights belong to the original authors. If any infringement occurs, please contact us immediately.

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

