

XENOY™ CL500U resin

Polycarbonate + PBT

SABIC Innovative Plastics Europe

Message:

XENOY CL500U is a semi-crystalline blend, developed for exterior automotive parts (except bumper shells) and non automotive parts, requiring good impact, excellent chemical resistance and UV stability.

General Information			
Features	Good Chemical Resistance		
	Good Impact Resistance		
	Good UV Resistance		
	Semi Crystalline		
Uses	Automotive Exterior Parts		
RoHS Compliance	RoHS Compliant		
Processing Method	Injection Molding		
Physical	Nominal Value	Unit	Test Method
Density	1.23	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (250°C/5.0 kg)	14.0	cm ³ /10min	ISO 1133
Molding Shrinkage - Flow ¹	0.90 to 1.2	%	Internal Method
Water Absorption			ISO 62
Saturation, 23°C	0.50	%	
Equilibrium, 23°C, 50% RH	0.20	%	
Hardness	Nominal Value	Unit	Test Method
Ball Indentation Hardness (H 358/30)	85.0	MPa	ISO 2039-1
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2000	MPa	ISO 527-2/1
Tensile Stress			ISO 527-2/50
Yield	40.0	MPa	
Break	35.0	MPa	
Tensile Strain			ISO 527-2/50
Yield	3.0	%	
Break	80	%	
Flexural Modulus ²	1900	MPa	ISO 178
Flexural Stress	60.0	MPa	ISO 178
Taber Abrasion Resistance (1000 Cycles, 1000 g, CS-17 Wheel)	30.0	mg	Internal Method
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength			
-30°C ³	21	kJ/m ²	ISO 179/1eA

-30°C	12	kJ/m ²	ISO 179/2C
23°C ⁴	65	kJ/m ²	ISO 179/1eA
23°C	40	kJ/m ²	ISO 179/2C
Charpy Unnotched Impact Strength ⁵			ISO 179/1eU
-30°C	No Break		
23°C	No Break		
Notched Izod Impact Strength ⁶			ISO 180/1A
-30°C	25	kJ/m ²	
-20°C	30	kJ/m ²	
0°C	60	kJ/m ²	
23°C	65	kJ/m ²	
Unnotched Izod Impact Strength ⁷			ISO 180/1U
-30°C	No Break		
23°C	No Break		
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature ⁸			
0.45 MPa, Unannealed, 100 mm Span	85.0	°C	ISO 75-2/Be
1.8 MPa, Unannealed, 100 mm Span	58.0	°C	ISO 75-2/Ae
Vicat Softening Temperature			
--	114	°C	ISO 306/B50
--	116	°C	ISO 306/B120
Ball Pressure Test (125°C)	Pass		IEC 60695-10-2
CLTE			ISO 11359-2
Flow : 23 to 80°C	1.3E-4	cm/cm/°C	
Transverse : 23 to 80°C	1.3E-4	cm/cm/°C	
Thermal Conductivity	0.20	W/m/K	ISO 8302
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+15	ohms	IEC 60093
Volume Resistivity	> 1.0E+14	ohms · cm	IEC 60093
Electric Strength (3.20 mm, in Oil)	17	kV/mm	IEC 60243-1
Relative Permittivity			IEC 60250
50 Hz	3.30		
60 Hz	3.30		
1 MHz	3.10		
Dissipation Factor			IEC 60250
50 Hz	2.0E-3		
60 Hz	2.0E-3		
1 MHz	0.020		
Flammability	Nominal Value	Unit	Test Method
Burning Rate (1.00 mm)	52	mm/min	ISO 3795
Flame Rating (1.50 mm, Testing by SABIC)	HB		UL 94
Injection	Nominal Value	Unit	

Drying Temperature	90.0 to 100	°C
Drying Time	2.0 to 4.0	hr
Suggested Max Moisture	0.020	%
Hopper Temperature	40.0 to 60.0	°C
Rear Temperature	230 to 250	°C
Middle Temperature	240 to 265	°C
Front Temperature	250 to 270	°C
Nozzle Temperature	250 to 265	°C
Processing (Melt) Temp	255 to 270	°C
Mold Temperature	60.0 to 80.0	°C

NOTE

- | | |
|----|-----------------|
| 1. | Tensile Bar |
| 2. | 2.0 mm/min |
| 3. | 80*10*4 sp=62mm |
| 4. | 80*10*4 sp=62mm |
| 5. | 80*10*4 sp=62mm |
| 6. | 80*10*4 |
| 7. | 80*10*4 |
| 8. | 120*10*4 mm |

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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

