

XENOY™ CL100S resin

Polycarbonate + PBT

SABIC Innovative Plastics Europe

Message:

XENOY CL100S has been specifically developed to obtain good low temperature impact strength, excellent UV stability and resistance to occasional solvent and gasoline contact. XENOY CL100S is particularly suited for unpainted exterior automotive body components.

General Information			
UL YellowCard	E45329-236630		
Features	Solvent resistance		
	Good UV resistance		
	Low temperature impact resistance		
	Gasoline resistance		
Uses	Automotive exterior parts		
RoHS Compliance	RoHS compliance		
Processing Method	Injection molding		
Physical	Nominal Value	Unit	Test Method
Density	1.22	g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (250°C/5.0 kg)	20.0	cm ³ /10min	ISO 1133
Molding Shrinkage ¹			Internal method
Flow	0.70 - 1.0	%	Internal method
Transverse flow	0.70 - 1.0	%	Internal method
Water Absorption			ISO 62
Saturated, 23°C	0.50	%	ISO 62
Equilibrium, 23°C, 50% RH	0.15	%	ISO 62
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (L-Scale)	94		ISO 2039-2
Ball Indentation Hardness (H 358/30)	96.0	MPa	ISO 2039-1
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2200	MPa	ISO 527-2/1
Tensile Stress (Yield)	55.0	MPa	ISO 527-2/50
Tensile Strain			ISO 527-2/50
Yield	5.0	%	ISO 527-2/50
Fracture	75	%	ISO 527-2/50
Flexural Modulus ²	2200	MPa	ISO 178
Flexural Stress	85.0	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	35	kJ/m ²	ISO 179/1eA
-30°C	10	kJ/m ²	ISO 179/2C
-20°C	10	kJ/m ²	ISO 179/2C
23°C ⁴	50	kJ/m ²	ISO 179/1eA
23°C	30	kJ/m ²	ISO 179/2C
Charpy Unnotched Impact Strength ⁵			ISO 179/1eU
-30°C	No Break		ISO 179/1eU
23°C	No Break		ISO 179/1eU
Notched Izod Impact ⁶			ISO 180/1A
-30°C	21	kJ/m ²	ISO 180/1A
23°C	46	kJ/m ²	ISO 180/1A
Unnotched Izod Impact Strength ⁷			ISO 180/1U
-30°C	No Break		ISO 180/1U
23°C	No Break		ISO 180/1U
Thermal	Nominal Value	Unit	Test Method
Heat Deflection Temperature ⁸			
0.45 MPa, unannealed, 100 mm span	110	°C	ISO 75-2/Be
1.8 MPa, unannealed, 100 mm span	90.0	°C	ISO 75-2/Ae
Vicat Softening Temperature			
--	150	°C	ISO 306/A50
--	125	°C	ISO 306/B50
--	127	°C	ISO 306/B120
Ball Pressure Test (75°C)	Pass		IEC 60695-10-2
Linear thermal expansion coefficient			ISO 11359-2
Flow: 23 to 80°C	9.0E-5	cm/cm/°C	ISO 11359-2
Lateral: 23 to 80°C	9.0E-5	cm/cm/°C	ISO 11359-2
Thermal Conductivity	0.18	W/m/K	ISO 8302
RTI Elec	75.0	°C	UL 746
RTI Imp	75.0	°C	UL 746
RTI	75.0	°C	UL 746
Electrical	Nominal Value	Unit	Test Method
Surface Resistivity	> 1.0E+15	ohms	IEC 60093
Volume Resistivity	> 1.0E+14	ohms · cm	IEC 60093
Dielectric Strength			IEC 60243-1
1.00 mm ⁹	18	kV/mm	IEC 60243-1
3.20mm, in oil	17	kV/mm	IEC 60243-1
Relative Permittivity			IEC 60250
50 Hz	3.30		IEC 60250
60 Hz	3.30		IEC 60250
1 MHz	3.30		IEC 60250
Dissipation Factor			IEC 60250

50 Hz	2.0E-3	IEC 60250	
60 Hz	2.0E-3	IEC 60250	
1 MHz	0.020	IEC 60250	
Flammability	Nominal Value	Unit	Test Method
Burning Rate (1.00 mm)	45	mm/min	ISO 3795
Flame Rating			UL 94
1.5 mm	HB		UL 94
3.0 mm	HB		UL 94
Injection	Nominal Value	Unit	
Drying Temperature	90 - 100	°C	
Drying Time	2.0 - 4.0	hr	
Suggested Max Moisture	0.020	%	
Hopper Temperature	40 - 60	°C	
Rear Temperature	230 - 250	°C	
Middle Temperature	240 - 265	°C	
Front Temperature	250 - 270	°C	
Nozzle Temperature	250 - 265	°C	
Processing (Melt) Temp	255 - 270	°C	
Mold Temperature	60 - 80	°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		
9.	Short-Time		

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