

Starex BC-0130 X

Acrylonitrile Butadiene Styrene

SAMSUNG SDI CO., LTD.

Message:

Highly stiff ABS material that is mainly used for battery case

General Information			
UL YellowCard	E115797-219522		
Features	High Stiffness		
Uses	Battery Cases		
Physical	Nominal Value	Unit	Test Method
Specific Gravity	1.05	g/cm ³	ASTM D792, ISO 1183
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	2.6	g/10 min	ASTM D1238, ISO 1133
Molding Shrinkage - Flow (3.20 mm)	0.30 to 0.60	%	ASTM D955
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness			
R-Scale	113		ASTM D785
R-Scale	115		ISO 2039-2
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus			
-- ¹	2400	MPa	ASTM D638
--	2600	MPa	ISO 527-2/50
Tensile Strength			
Yield ²	48.0	MPa	ASTM D638
Yield	55.0	MPa	ISO 527-2/50
Break ³	37.0	MPa	ASTM D638
Break	38.0	MPa	ISO 527-2/50
Tensile Elongation			
Break ⁴	14	%	ASTM D638
Break	10	%	ISO 527-2/50
Flexural Modulus			
-- ⁵	2200	MPa	ASTM D790
-- ⁶	2700	MPa	ISO 178
Flexural Strength			
-- ⁷	71.0	MPa	ASTM D790
-- ⁸	86.0	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁹ (23°C)	16	kJ/m ²	ISO 179/1eA
Notched Izod Impact			
23°C, 3.18 mm	120	J/m	ASTM D256

23°C, 6.35 mm	98	J/m	ASTM D256
23°C ¹⁰	13	kJ/m ²	ISO 180/1A
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			
0.45 MPa, Unannealed, 6.40 mm	96.0	°C	ASTM D648
0.45 MPa, Unannealed, 4.00 mm	92.0	°C	ISO 75-2/B
1.8 MPa, Unannealed, 6.40 mm	86.0	°C	ASTM D648
1.8 MPa, Unannealed, 4.00 mm	80.0	°C	ISO 75-2/A
Vicat Softening Temperature			
--	99.0	°C	ISO 306/B50
--	102	°C	ISO 306/B120
Flammability	Nominal Value		Test Method
Flame Rating			UL 94
1.50 mm	HB		
3.00 mm	HB		
Injection	Nominal Value	Unit	
Drying Temperature			
--	80.0	°C	
Desiccant Dryer	80.0	°C	
Drying Time			
--	2.0 to 4.0	hr	
Desiccant Dryer	2.0 to 3.0	hr	
Suggested Max Moisture	< 0.10	%	
Rear Temperature	190 to 200	°C	
Middle Temperature	210	°C	
Front Temperature	210 to 220	°C	
Nozzle Temperature	230	°C	
Mold Temperature	40.0 to 80.0	°C	
Injection Pressure	88.3	MPa	
Back Pressure	0.981 to 1.96	MPa	
Screw Speed	50 to 90	rpm	
NOTE			
1.	5.0 mm/min		
2.	5.0 mm/min		
3.	5.0 mm/min		
4.	5.0 mm/min		
5.	2.8 mm/min		
6.	2.0 mm/min		
7.	2.8 mm/min		
8.	2.0 mm/min		
9.	Thickness: 4 mm		
10.	Thickness: 4 mm		

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Recommended distributors for this material

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