Starex BC-0130 X

Lotte Chemical Corporation - Acrylonitrile Butadiene Styrene

General Information

General

Uses	• Battery Cases

Properties [1]

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity (Natural)	1.05		ASTM D792
Density (Natural)	1.05	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	2.6	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	2.6	g/10 min	ISO 1133
Molding Shrinkage - Flow (0.126 in)	2.0E-3 to 5.0E-3	in/in	ASTM D955
Molding Shrinkage - Across Flow (0.126 in)	2.0E-3 to 5.0E-3	in/in	ASTM D955
Molding Shrinkage			ISO 294-4
Across Flow : 0.0787 in	0.20 to 0.50	%	
Flow : 0.0787 in	0.20 to 0.50	%	
Mechanical	**Nominal Value**	**Unit**	**Test Method**
Tensile Modulus [2]	348000	psi	ASTM D638
Tensile Modulus	377000	psi	ISO 527-1/50
Tensile Strength [2] (Yield)	6970	psi	ASTM D638
Tensile Stress (Yield)	7980	psi	ISO 527-2/50
Tensile Strength [2] (Break)	5400	psi	ASTM D638
Tensile Stress (Break)	5510	psi	ISO 527-2/50
Tensile Elongation [2] (Break)	14	%	ASTM D638
Tensile Strain (Break)	10	%	ISO 527-2/50
Flexural Modulus [3]	348000	psi	ASTM D790
Flexural Modulus [4]	392000	psi	ISO 178
Flexural Strength [3]	10200	psi	ASTM D790
Flexural Stress [4]	12500	psi	ISO 178
Impact	**Nominal Value**	**Unit**	**Test Method**
Charpy Notched Impact Strength [5] (73°F)	7.6	ft·lb/in²	ISO 179/1eA
Notched Izod Impact			ASTM D256
73°F, 0.125 in	2.8	ft·lb/in	
73°F, 0.250 in	2.4	ft·lb/in	
Notched Izod Impact Strength [5] (73°F)	6.2	ft·lb/in²	ISO 180/1A
Hardness	**Nominal Value**	**Unit**	**Test Method**
Rockwell Hardness (R-Scale)	113		ASTM D785
Rockwell Hardness (R-Scale)	115		ISO 2039-2

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Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi, Unannealed, 0.252 in	205	°F	
Deflection Temperature Under Load			ISO 75-2/B
66 psi, Unannealed, 0.157 in	198	°F	
Deflection Temperature Under Load			ASTM D648
264 psi, Unannealed, 0.252 in	187	°F	
Deflection Temperature Under Load			ISO 75-2/A
264 psi, Unannealed, 0.157 in	176	°F	
Vicat Softening Temperature			
--	216	°F	ISO 306/B120
--	210	°F	ISO 306/B50

Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
0.06 in	HB		
0.12 in	HB		

Processing Information

Injection	Nominal Value	Unit
Drying Temperature		
Desiccant Dryer	176	°F
Hot Air Dryer	176	°F
Drying Time		
Desiccant Dryer	2.0 to 3.0	hr
Hot Air Dryer	2.0 to 4.0	hr
Suggested Max Moisture	< 0.10	%
Rear Temperature	374 to 392	°F
Middle Temperature	410	°F
Front Temperature	410 to 428	°F
Nozzle Temperature	446	°F
Mold Temperature	104 to 176	°F
Injection Pressure	12800	psi
Back Pressure	142 to 284	psi
Screw Speed	50 to 90	rpm

Injection Notes

Hot Runner Temperature: 230°C