

Starex CM-0140

Lotte Chemical Corporation - Acrylonitrile Butadiene Styrene

Properties ¹			
Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity (Natural)	1.04		ASTM D792
Density (Natural)	1.04	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	3.2	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	3.2	g/10 min	ISO 1133
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	319000	psi	ISO 527-1/50
Tensile Strength ² (Yield)	5690	psi	ASTM D638
Tensile Stress (Yield)	6530	psi	ISO 527-2/50
Tensile Stress (Break)	5080	psi	ISO 527-2/50
Tensile Strain (Break)	14	%	ISO 527-2/50
Flexural Modulus ³	319000	psi	ASTM D790
Flexural Modulus ⁴	348000	psi	ISO 178
Flexural Strength ³	8820	psi	ASTM D790
Flexural Stress ⁴	10600	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁵ (73°F)	12	ft·lb/in ²	ISO 179/1eA
Notched Izod Impact (73°F, 0.250 in)	4.1	ft·lb/in	ASTM D256
Notched Izod Impact Strength ⁵ (73°F)	11	ft·lb/in ²	ISO 180/1A
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	106		ASTM D785
Rockwell Hardness (R-Scale)	109		ISO 2039-2
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load 66 psi, Unannealed, 0.157 in	190	°F	ISO 75-2/B
Deflection Temperature Under Load 66 psi, Annealed, 0.157 in	212	°F	ISO 75-2/B
Deflection Temperature Under Load 264 psi, Unannealed, 0.252 in	178	°F	ASTM D648
Deflection Temperature Under Load 264 psi, Unannealed, 0.157 in	169	°F	ISO 75-2/A
Deflection Temperature Under Load 264 psi, Annealed, 0.157 in	205	°F	ISO 75-2/A
Vicat Softening Temperature			
--	208	°F	ISO 306/B120
--	203	°F	ISO 306/B50
Flammability	Nominal Value	Unit	Test Method
Flame Rating (0.04 in)	HB		UL 94

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Optical	Nominal Value	Unit	Test Method
Yellowness Index	9.0 to 21	YI	ASTM D1925

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	< 0.050	%
Rear Temperature	320 to 356	°F
Middle Temperature	374 to 392	°F
Front Temperature	410 to 428	°F
Nozzle Temperature	446	°F
Mold Temperature	104 to 176	°F
Injection Pressure	7110 to 21300	psi
Back Pressure	71.1 to 284	psi
Screw Speed	50 to 150	rpm

Injection Notes

Hot Runner Temperature: 230°C