

# Starex CM-0140 M

Lotte Chemical Corporation - Acrylonitrile Butadiene Styrene

Properties <sup>1</sup>			
Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity (Natural)	1.05		ASTM D792
Density (Natural)	1.05	g/cm <sup>3</sup>	ISO 1183
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	7.0	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	7.0	g/10 min	ISO 1133
Molding Shrinkage - Flow (0.126 in)	2.5E-3 to 3.5E-3	in/in	ASTM D955
Molding Shrinkage - Across Flow (0.126 in)	2.5E-3 to 3.5E-3	in/in	ASTM D955
Molding Shrinkage			ISO 294-4
Across Flow : 0.0787 in	0.25 to 0.35	%	
Flow : 0.0787 in	0.25 to 0.35	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus <sup>2</sup>	348000	psi	ASTM D638
Tensile Modulus	355000	psi	ISO 527-1/5
Tensile Strength <sup>2</sup> (Yield)	6400	psi	ASTM D638
Tensile Stress (Yield)	5220	psi	ISO 527-2/5
Tensile Strength <sup>2</sup> (Break)	4980	psi	ASTM D638
Tensile Stress (Break)	5080	psi	ISO 527-2/5
Tensile Elongation <sup>2</sup> (Break)	20	%	ASTM D638
Tensile Strain (Break)	20	%	ISO 527-2/5
Flexural Modulus <sup>3</sup>	353000	psi	ASTM D790
Flexural Modulus <sup>4</sup>	377000	psi	ISO 178
Flexural Strength <sup>3</sup>	9960	psi	ASTM D790
Flexural Stress <sup>4</sup>	10900	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength <sup>5</sup> (73°F)	6.7	ft·lb/in <sup>2</sup>	ISO 179/1eA
Notched Izod Impact			ASTM D256
73°F, 0.125 in	2.6	ft·lb/in	
73°F, 0.250 in	1.8	ft·lb/in	
Notched Izod Impact Strength <sup>5</sup> (73°F)	5.2	ft·lb/in <sup>2</sup>	ISO 180/1A
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	113		ASTM D785
Rockwell Hardness (R-Scale)	115		ISO 2039-2
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi, Unannealed, 0.252 in	208	°F	
Deflection Temperature Under Load			ISO 75-2/B
66 psi, Unannealed, 0.157 in	189	°F	
Deflection Temperature Under Load			ASTM D648
264 psi, Unannealed, 0.252 in	183	°F	

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<b>Thermal</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Deflection Temperature Under Load 264 psi, Unannealed, 0.157 in	167	°F	ISO 75-2/A
Vicat Softening Temperature	207 203	°F	ISO 306/B50
<b>Flammability</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Flame Rating 0.04 in 0.12 in	HB HB		UL 94
<b>Optical</b>	<b>Nominal Value</b>	<b>Unit</b>	<b>Test Method</b>
Gloss <sup>6</sup> (60°)	80		ASTM D2457

**Processing Information**

<b>Injection</b>	<b>Nominal Value</b>	<b>Unit</b>
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