

Starex LD-0955

Lotte Chemical Corporation - Polymethyl Methacrylate Acrylic

General Information

General

Uses • Appliances

Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity (Natural)	1.17		ASTM D792
Density (Natural)	1.17	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	22	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	22	g/10 min	ISO 1133
Molding Shrinkage - Flow (0.126 in)	3.0E-3	in/in	ASTM D955
Molding Shrinkage - Across Flow (0.126 in)	3.0E-3	in/in	ASTM D955
Molding Shrinkage			ISO 294-4
Across Flow : 0.0787 in	0.30	%	
Flow : 0.0787 in	0.30	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus ²	356000	psi	ASTM D638
Tensile Modulus	363000	psi	ISO 527-1/50
Tensile Strength ² (Yield)	7970	psi	ASTM D638
Tensile Stress (Yield)	7980	psi	ISO 527-2/50
Tensile Strength ² (Break)	4980	psi	ASTM D638
Tensile Stress (Break)	6530	psi	ISO 527-2/50
Tensile Elongation ² (Break)	25	%	ASTM D638
Tensile Strain (Break)	10	%	ISO 527-2/50
Flexural Modulus ³	344000	psi	ASTM D790
Flexural Modulus ⁴	363000	psi	ISO 178
Flexural Strength ³	11500	psi	ASTM D790
Flexural Stress ⁴	13100	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁵ (73°F)	0.95	ft·lb/in ²	ISO 179/1eA
Charpy Unnotched Impact Strength ⁵ (73°F)	14	ft·lb/in ²	ISO 179/1eU
Notched Izod Impact			ASTM D256
73°F, 0.125 in	0.37	ft·lb/in	
73°F, 0.250 in	0.37	ft·lb/in	
Notched Izod Impact Strength ⁵ (73°F)	0.95	ft·lb/in ²	ISO 180/1A
Unnotched Izod Impact			ASTM D4812
23°F, 0.125 in	4.9	ft·lb/in	
23°F, 0.250 in	4.7	ft·lb/in	
Unnotched Izod Impact Strength ⁵ (73°F)	12	ft·lb/in ²	ISO 180/1U
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	117		ASTM D785
Rockwell Hardness (R-Scale)	117		ISO 2039-2

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Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load 66 psi, Unannealed, 0.252 in	210	°F	ASTM D648
Deflection Temperature Under Load 66 psi, Unannealed, 0.157 in	176	°F	ISO 75-2/B
Deflection Temperature Under Load 264 psi, Unannealed, 0.252 in	174	°F	ASTM D648
Deflection Temperature Under Load 264 psi, Unannealed, 0.157 in	167	°F	ISO 75-2/A
Vicat Softening Temperature	207	°F	ISO 306/B50

Processing Information

Injection	Nominal Value	Unit
Drying Temperature		
Desiccant Dryer	194	°F
Hot Air Dryer	194	°F
Drying Time		
Desiccant Dryer	2.0 to 4.0	hr
Hot Air Dryer	4.0	hr
Suggested Max Moisture	0.050	%
Rear Temperature	428 to 446	°F
Middle Temperature	446 to 464	°F
Front Temperature	464 to 482	°F
Nozzle Temperature	482	°F
Mold Temperature	122 to 176	°F
Injection Pressure	14200	psi
Back Pressure	71.1 to 356	psi
Screw Speed	50 to 80	rpm

Injection Notes

Hot Runner Temperature: 230 to 250°C

Notes

¹ Typical properties: these are not to be construed as specifications.

² 0.20 in/min

³ 0.11 in/min

⁴ 0.079 in/min

⁵ 4mm