

Starex TF-0956

Lotte Chemical Corporation - Polymethyl Methacrylate Acrylic

General Information

General

Uses • Appliances

Properties¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity (Natural)	1.07		ASTM D792
Density (Natural)	1.07	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR)			ASTM D1238
220°C/10.0 kg	6.0	g/10 min	
230°C/3.8 kg	3.0	g/10 min	
Melt Mass-Flow Rate (MFR)			ISO 1133
220°C/10.0 kg	6.0	g/10 min	
230°C/3.8 kg	3.0	g/10 min	
Molding Shrinkage - Flow (0.126 in)	3.0E-3 to 3.7E-3	in/in	ASTM D955
Molding Shrinkage - Across Flow (0.126 in)	3.5E-3 to 4.2E-3	in/in	ASTM D955
Molding Shrinkage			ISO 294-4
Across Flow : 0.0787 in	0.35 to 0.42	%	
Flow : 0.0787 in	0.30 to 0.37	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus ²	320000	psi	ASTM D638
Tensile Modulus	363000	psi	ISO 527-1/50
Tensile Strength ² (Yield)	7400	psi	ASTM D638
Tensile Stress (Yield)	8990	psi	ISO 527-2/50
Tensile Strength ² (Break)	6540	psi	ASTM D638
Tensile Stress (Break)	7250	psi	ISO 527-2/50
Tensile Elongation ² (Break)	50	%	ASTM D638
Tensile Strain (Break)	17	%	ISO 527-2/50
Flexural Modulus ³	284000	psi	ASTM D790
Flexural Modulus ⁴	319000	psi	ISO 178
Flexural Strength ³	10700	psi	ASTM D790
Flexural Stress ⁴	11600	psi	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁵ (73°F)	2.2	ft-lb/in ²	ISO 179/1eA
Notched Izod Impact			ASTM D256
73°F, 0.125 in	0.92	ft-lb/in	
73°F, 0.250 in	0.83	ft-lb/in	
Notched Izod Impact Strength ⁵ (73°F)	1.9	ft-lb/in ²	ISO 180/1A
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	115		ASTM D785
Rockwell Hardness (R-Scale)	115		ISO 2039-2
Pencil Hardness ⁶	H		JIS K5401

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Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load 264 psi, Unannealed, 0.252 in	176	°F	ASTM D648
Vicat Softening Temperature	199	°F	ISO 306/B50
Flammability	Nominal Value	Unit	Test Method
Flame Rating 0.06 in 0.12 in	HB HB		UL 94

Processing Information

Injection	Nominal Value	Unit
Drying Temperature Desiccant Dryer Hot Air Dryer	194	°F
Drying Time Desiccant Dryer Hot Air Dryer	2.0 to 3.0 2.0 to 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	7110 to 35600	psi
Back Pressure	71.1 to 284	psi
Screw Speed	50 to 150	rpm

Injection Notes

Hot Runner Temperature: 240 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

⁶ 500g