

Starex TX-0510T

Lotte Chemical Corporation - Methyl Methacrylate / ABS

Saturday, November 18, 2023

General Information

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America
Uses	• Electrical/Electronic Applications		

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity (Natural)	1.10	g/cm ³	ASTM D792
Density (Natural)	1.10	g/cm ³	ISO 1183
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	16	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	16	g/10 min	ISO 1133
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2200	MPa	ISO 527-1/50
Tensile Strength ² (Yield)	44.1	MPa	ASTM D638
Tensile Stress (Yield)	47.0	MPa	ISO 527-2/50
Tensile Stress (Break)	35.0	MPa	ISO 527-2/50
Tensile Strain (Break)	16	%	ISO 527-2/50
Flexural Modulus ³	2100	MPa	ASTM D790
Flexural Modulus ⁴	2200	MPa	ISO 178
Flexural Strength ³	63.7	MPa	ASTM D790
Flexural Stress ⁴	70.0	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁵ (23°C)	13	kJ/m ²	ISO 179/1eA
Notched Izod Impact (23°C, 3.18 mm)	150	J/m	ASTM D256
Notched Izod Impact Strength ⁵ (23°C)	12	kJ/m ²	ISO 180/1A
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	109		ASTM D785
Rockwell Hardness (R-Scale)	110		ISO 2039-2
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load 0.45 MPa, Unannealed, 4.00 mm	83.0	°C	ISO 75-2/B
Deflection Temperature Under Load 0.45 MPa, Annealed, 4.00 mm	86.0	°C	ISO 75-2/B
Deflection Temperature Under Load 1.8 MPa, Unannealed, 4.00 mm	70.0	°C	ISO 75-2/A
Deflection Temperature Under Load 1.8 MPa, Annealed, 4.00 mm	80.0	°C	ISO 75-2/A
Vicat Softening Temperature	88.0	°C	ISO 306/B50

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Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
1.5 mm		HB	
3.0 mm		HB	
Optical	Nominal Value	Unit	Test Method
Light Transmittance (81280 µm)	88.0	%	ASTM D1003
Haze (3200 µm)	2.80	%	ASTM D1003

Processing Information

Injection	Nominal Value	Unit
Drying Temperature		
Desiccant Dryer	80	°C
Hot Air Dryer	80	°C
Drying Time		
Desiccant Dryer	2.0 to 4.0	hr
Hot Air Dryer	4.0 to 6.0	hr
Suggested Max Moisture	< 0.050	%
Rear Temperature	180 to 190	°C
Middle Temperature	200 to 210	°C
Front Temperature	220 to 230	°C
Nozzle Temperature	230	°C
Mold Temperature	50 to 70	°C
Injection Pressure	49.0 to 196	MPa
Back Pressure	0.490 to 1.96	MPa
Screw Speed	50 to 150	rpm

Injection Notes

Hot Runner Temperature: 220°C

Notes

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

² 5.0 mm/min

³ 2.8 mm/min

⁴ 2.0 mm/min

⁵ 4mm