

Starex TX-0510

Lotte Chemical Corporation - Methyl Methacrylate / ABS

Wednesday, March 9, 2022

General Information

General

Material Status	• Commercial: Active		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America

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
Molding Shrinkage - Flow (3.20 mm)	0.43 to 0.52	%	ASTM D955
Molding Shrinkage - Across Flow (3.20 mm)	0.44 to 0.54	%	ASTM D955
Molding Shrinkage			ISO 294-4
Across Flow : 2.00 mm	0.44 to 0.54	%	
Flow : 2.00 mm	0.43 to 0.52	%	
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus ²	2000	MPa	ASTM D638
Tensile Strength ² (Yield)	44.0	MPa	ASTM D638
Tensile Stress (Yield)	47.0	MPa	ISO 527-2/50
Tensile Strength ² (Break)	32.0	MPa	ASTM D638
Tensile Elongation ² (Break)	19	%	ASTM D638
Flexural Modulus ³	2100	MPa	ASTM D790
Flexural Modulus ⁴	2200	MPa	ISO 178
Flexural Strength ³	64.0	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			ASTM D256
23°C, 3.18 mm	150	J/m	
23°C, 6.35 mm	150	J/m	
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			ASTM D648
1.8 MPa, Unannealed, 6.40 mm	78.0	°C	
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	

Processing Information

Injection	Nominal Value	Unit
Drying Temperature		
Desiccant Dryer	80	°C
Hot Air Dryer	80	°C
Drying Time		
Desiccant Dryer	2.0	hr
Hot Air Dryer	2.0	hr
Suggested Max Moisture	0.050	%
Rear Temperature	200 to 215	°C
Middle Temperature	215	°C
Front Temperature	215 to 230	°C
Nozzle Temperature	230	°C
Mold Temperature	40 to 60	°C
Injection Pressure	49.0 to 196	MPa
Back Pressure	0.490 to 4.90	MPa
Screw Speed	10 to 100	rpm

Injection Notes

Hot Runner Temperature: 230°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

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