

Lotte Chemical Corporation - Methyl Methacrylate / ABS

Wednesday, March 9, 2022

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General Information						
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Material Status	Commercial: Active					
Availability	 Africa & Middle East Asia Pacific	EuropeLatin America	North America			

ASTM & IS	O Properties 1		
Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity (Natural)	1.10	g/cm³	ASTM D792
Density (Natural)	1.10	g/cm³	ISO 1183
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	15	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	15	g/10 min	ISO 1133
Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus	2100	MPa	ISO 527-1/50
Tensile Strength ² (Yield)	42.0	MPa	ASTM D638
Tensile Stress (Yield)	47.0	MPa	ISO 527-2/50
Tensile Stress (Break)	34.0	MPa	ISO 527-2/50
Tensile Strain (Break)	15	%	ISO 527-2/50
Flexural Modulus ³	2000	MPa	ASTM D790
Flexural Modulus ⁴	2200	MPa	ISO 178
Flexural Strength ³	59.0	MPa	ASTM D790
Flexural Stress ⁴	70.0	MPa	ISO 178
Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength ⁵ (23°C)	12	kJ/m²	ISO 179/1eA
Notched Izod Impact (23°C, 3.18 mm)	160	J/m	ASTM D256
Notched Izod Impact Strength ⁵ (23°C)	12	kJ/m²	ISO 180/1A
Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	106		ASTM D785
Rockwell Hardness (R-Scale)	110		ISO 2039-2
Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ISO 75-2/B
0.45 MPa, Unannealed, 4.00 mm	81.0	°C	
Deflection Temperature Under Load			ISO 75-2/B
0.45 MPa, Annealed, 4.00 mm	85.0	°C	
Deflection Temperature Under Load			ISO 75-2/A
1.8 MPa, Unannealed, 4.00 mm	71.0	°C	
Deflection Temperature Under Load			ISO 75-2/A
1.8 MPa, Annealed, 4.00 mm	80.0	°C	
Vicat Softening Temperature	87.0	°C	ISO 306/B50
Flammability	Nominal Value	Unit	Test Method
Flame Rating			UL 94
1.5 mm	HB		
3.0 mm	HB		



Starex TX-0520T

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Optical	Nominal Value Unit	Test Method
Light Transmittance (81280 μm)	88.0 %	ASTM D1003
Haze (3200 µm)	3.00 %	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		
niection Notes				

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



