

# Starex TX-0510F

Lotte Chemical Corporation - Methyl Methacrylate / ABS

## General Information

General	
Uses	• Food Containers

## Properties <sup>1</sup>

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity (Natural)	1.10		ASTM D792
Density (Natural)	1.10	g/cm <sup>3</sup>	ISO 1183
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	14	g/10 min	ASTM D1238
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	14	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)	4.0E-3	in/in	ASTM D955
Molding Shrinkage			ISO 294-4
Across Flow : 0.0787 in	0.40	%	
Flow : 0.0787 in	0.30	%	

Mechanical	Nominal Value	Unit	Test Method
Tensile Modulus <sup>2</sup>	284000	psi	ASTM D638
Tensile Modulus	305000	psi	ISO 527-1/5
Tensile Strength <sup>2</sup> (Yield)	6120	psi	ASTM D638
Tensile Stress (Yield)	6820	psi	ISO 527-2/5
Tensile Strength <sup>2</sup> (Break)	4980	psi	ASTM D638
Tensile Stress (Break)	4640	psi	ISO 527-2/5
Tensile Elongation <sup>2</sup> (Break)	30	%	ASTM D638
Tensile Strain (Break)	15	%	ISO 527-2/5
Flexural Modulus <sup>3</sup>	284000	psi	ASTM D790
Flexural Modulus <sup>4</sup>	319000	psi	ISO 178
Flexural Strength <sup>3</sup>	8530	psi	ASTM D790
Flexural Stress <sup>4</sup>	10200	psi	ISO 178

Impact	Nominal Value	Unit	Test Method
Charpy Notched Impact Strength <sup>5</sup> (73°F)	5.7	ft·lb/in <sup>2</sup>	ISO 179/1eA
Notched Izod Impact			ASTM D256
73°F, 0.125 in	3.0	ft·lb/in	
73°F, 0.250 in	3.0	ft·lb/in	
Notched Izod Impact Strength <sup>5</sup> (73°F)	5.7	ft·lb/in <sup>2</sup>	ISO 180/1A

Hardness	Nominal Value	Unit	Test Method
Rockwell Hardness (R-Scale)	106		ASTM D785
Rockwell Hardness (R-Scale)	106		ISO 2039-2

Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load			ASTM D648
66 psi, Unannealed, 0.252 in	190	°F	
Deflection Temperature Under Load			ISO 75-2/B
66 psi, Unannealed, 0.157 in	178	°F	

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## Lotte Chemical Corporation - Methyl Methacrylate / ABS

Thermal	Nominal Value	Unit	Test Method
Deflection Temperature Under Load 264 psi, Unannealed, 0.252 in	176	°F	ASTM D648
Deflection Temperature Under Load 264 psi, Unannealed, 0.157 in	160	°F	ISO 75-2/A
Optical	Nominal Value	Unit	Test Method
Light Transmittance 3200.0 mil	88.0	%	ASTM D1003
3200.0 mil	88.0	%	ISO 13468
Haze 126.0 mil	3.00	%	ASTM D1003
126.0 mil	3.00	%	ISO 13468
Yellowness Index (0.126 in)	-1.4	YI	ASTM D1925

### Processing Information

Injection	Nominal Value	Unit
Drying Temperature Desiccant Dryer	176	°F
Hot Air Dryer	185	°F
Drying Time Desiccant Dryer	4.0	hr
Hot Air Dryer	4.0	hr
Suggested Max Moisture	0.050	%
Rear Temperature	410 to 428	°F
Middle Temperature	410 to 428	°F
Front Temperature	446	°F
Nozzle Temperature	464	°F
Mold Temperature	140	°F
Injection Pressure	7110 to 29900	psi
Back Pressure	71.1 to 284	psi
Screw Speed	30 to 70	rpm

#### Injection Notes

Hot Runner Temperature: 240°C

#### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> 0.20 in/min

<sup>3</sup> 0.11 in/min

<sup>4</sup> 0.079 in/min

<sup>5</sup> 4mm