

# Starex TX-0510T

Methyl Methacrylate / ABS  
Lotte Chemical Corporation

**PROSPECTOR**<sup>®</sup>

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## Technical Data

### Product Description

Starex TX-0510T is a Methyl Methacrylate / ABS (MABS) material. It is available in Africa & Middle East, Asia Pacific, Europe, Latin America, or North America. Primary attribute of Starex TX-0510T: Flame Rated.

### General

Material Status	• Commercial: Active		
Literature <sup>1</sup>	• Processing (English) • Technical Information - ASTM (English) • Technical Information - ISO (English)		
UL Yellow Card <sup>2</sup>	• E115797-101048865		
Search for UL Yellow Card	• Lotte Chemical Corporation • Starex		
Availability	• Africa & Middle East • Asia Pacific	• Europe • Latin America	• North America

Physical	Nominal Value Unit	Test Method
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Density / Specific Gravity (Natural)	1.10 g/cm <sup>3</sup>	ASTM D792 ISO 1183
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	16 g/10 min	ASTM D1238 ISO 1133

Mechanical	Nominal Value Unit	Test Method
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Tensile Modulus	2200 MPa	ISO 527-2/50
Tensile Strength		
Yield <sup>4</sup>	44.0 MPa	ASTM D638
Yield	47.0 MPa	ISO 527-2/50
Break	35.0 MPa	ISO 527-2/50
Tensile Strain (Break)	16 %	ISO 527-2/50
Flexural Modulus		
-- <sup>5</sup>	2100 MPa	ASTM D790
-- <sup>6</sup>	2200 MPa	ISO 178
Flexural Strength		
-- <sup>5</sup>	64.0 MPa	ASTM D790
-- <sup>6</sup>	70.0 MPa	ISO 178

Impact	Nominal Value Unit	Test Method
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Charpy Notched Impact Strength <sup>7</sup> (23°C)	13 kJ/m <sup>2</sup>	ISO 179/1eA
Notched Izod Impact		
23°C, 3.18 mm	150 J/m	ASTM D256
23°C <sup>7</sup>	12 kJ/m <sup>2</sup>	ISO 180/1A

Hardness	Nominal Value Unit	Test Method
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Rockwell Hardness		
R-Scale	109	ASTM D785
R-Scale	110	ISO 2039-2

Thermal	Nominal Value Unit	Test Method
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Heat Deflection Temperature		
0.45 MPa, Unannealed, 4.00 mm	83.0 °C	ISO 75-2/B
0.45 MPa, Annealed, 4.00 mm	86.0 °C	ISO 75-2/B
1.8 MPa, Unannealed, 4.00 mm	70.0 °C	ISO 75-2/A
1.8 MPa, Annealed, 4.00 mm	80.0 °C	ISO 75-2/A
Vicat Softening Temperature	88.0 °C	ISO 306/B50

Flammability	Nominal Value Unit	Test Method
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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

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**

<sup>1</sup> These links provide you with access to supplier literature. We work hard to keep them up to date; however you may find the most current literature from the supplier.

<sup>2</sup> A UL Yellow Card contains UL-verified flammability and electrical characteristics. UL Prospector continually works to link Yellow Cards to individual plastic materials in Prospector, however this list may not include all of the appropriate links. It is important that you verify the association between these Yellow Cards and the plastic material found in Prospector. For a complete listing of Yellow Cards, visit the UL Yellow Card Search.

<sup>3</sup> Typical properties: these are not to be construed as specifications.

<sup>4</sup> 5.0 mm/min

<sup>5</sup> 2.8 mm/min

<sup>6</sup> 2.0 mm/min

<sup>7</sup> 4mm

