

# Starex VH-0810

Acrylonitrile Butadiene Styrene

Lotte Chemical Corporation

**PROSPECTOR**<sup>®</sup>

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## Technical Data

### Product Description

Starex VH-0810 is an Acrylonitrile Butadiene Styrene (ABS) material. It is available in Africa & Middle East, Asia Pacific, Europe, Latin America, or North America.

Important attributes of Starex VH-0810 are:

- Flame Rated
- RoHS Compliant

### General

Material Status	• Commercial: Active
Literature <sup>1</sup>	• <a href="#">Processing (English)</a> • <a href="#">Technical Information - ASTM (English)</a> • <a href="#">Technical Information - ISO (English)</a>
UL Yellow Card <sup>2</sup>	• <a href="#">E115797-219608</a>
Search for UL Yellow Card	• <a href="#">Lotte Chemical Corporation</a> • <a href="#">Starex</a>
Availability	• Africa & Middle East • Asia Pacific • Europe • Latin America • North America
RoHS Compliance	• RoHS Compliant

Physical	Nominal Value Unit	Test Method
Density / Specific Gravity (Natural)	1.16 g/cm <sup>3</sup>	ASTM D792 ISO 1183
Melt Mass-Flow Rate (MFR) (200°C/5.0 kg)	6.0 g/10 min	ASTM D1238 ISO 1133
Molding Shrinkage		
Flow : 3.20 mm	0.28 to 0.34 %	ASTM D955
Across Flow : 3.20 mm	0.30 to 0.37 %	ASTM D955
Across Flow : 2.00 mm	0.30 to 0.37 %	ISO 294-4
Flow : 2.00 mm	0.28 to 0.34 %	ISO 294-4

Mechanical	Nominal Value Unit	Test Method
Tensile Modulus		
-- <sup>4</sup>	2100 MPa	ASTM D638
--	2300 MPa	ISO 527-2/50
Tensile Strength		
Yield <sup>4</sup>	39.0 MPa	ASTM D638
Yield	45.0 MPa	ISO 527-2/50
Break <sup>4</sup>	29.0 MPa	ASTM D638
Break	33.0 MPa	ISO 527-2/50
Tensile Elongation		
Break <sup>4</sup>	11 %	ASTM D638
Break	11 %	ISO 527-2/50
Flexural Modulus		
-- <sup>5</sup>	2200 MPa	ASTM D790
-- <sup>6</sup>	2600 MPa	ISO 178
Flexural Strength		
-- <sup>5</sup>	60.0 MPa	ASTM D790
-- <sup>6</sup>	75.0 MPa	ISO 178



Impact	Nominal Value Unit	Test Method
Charpy Notched Impact Strength <sup>7</sup> (23°C)	19 kJ/m <sup>2</sup>	ISO 179/1eA
Notched Izod Impact		
23°C, 3.18 mm	250 J/m	ASTM D256
23°C, 6.35 mm	230 J/m	ASTM D256
23°C <sup>7</sup>	18 kJ/m <sup>2</sup>	ISO 180/1A
Hardness	Nominal Value Unit	Test Method
Rockwell Hardness		
R-Scale	103	ASTM D785
R-Scale	108	ISO 2039-2
Thermal	Nominal Value Unit	Test Method
Heat Deflection Temperature		
0.45 MPa, Unannealed, 4.00 mm	79.0 °C	ISO 75-2/B
0.45 MPa, Annealed, 4.00 mm	86.0 °C	ISO 75-2/B
1.8 MPa, Unannealed, 6.40 mm	78.0 °C	ASTM D648
1.8 MPa, Unannealed, 4.00 mm	70.0 °C	ISO 75-2/A
1.8 MPa, Annealed, 4.00 mm	81.0 °C	ISO 75-2/A
Vicat Softening Temperature		
--	88.0 °C	ISO 306/B120
--	87.0 °C	ISO 306/B50
--	85.0 °C	ISO 306/B50
Flammability	Nominal Value Unit	Test Method
Flame Rating		UL 94
2.5 mm	V-0	
3.0 mm	V-0	
6.0 mm	V-0	
Injection	Nominal Value Unit	
Drying Temperature		
Desiccant Dryer	80 °C	
Hot Air Dryer	80 °C	
Drying Time		
Desiccant Dryer	2.0 to 3.0 hr	
Hot Air Dryer	2.0 to 4.0 hr	
Suggested Max Moisture	< 0.050 %	
Rear Temperature	160 to 180 °C	
Middle Temperature	190 to 200 °C	
Front Temperature	210 to 220 °C	
Nozzle Temperature	220 °C	
Mold Temperature	40 to 80 °C	
Injection Pressure	49.0 to 147 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

