

Starex GR-4020

Acrylonitrile Butadiene Styrene

LOTTE ADVANCED MATERIALS CO., LTD.

PROSPECTOR[®]

www.ulprospector.com

Technical Data

Product Description

Starex GR-4020 is an Acrylonitrile Butadiene Styrene (ABS) product filled with glass fiber. It is available in Africa & Middle East, Asia Pacific, Europe, Latin America, or North America. Typical application: Appliances. Primary characteristic: flame rated.

General

Material Status	• Commercial: Active
Literature ¹	• Processing (English) • Technical Datasheet - ASTM (English) • Technical Datasheet - ISO (English)
UL Yellow Card ²	• E115797-219535
Search for UL Yellow Card	• LOTTE ADVANCED MATERIALS CO., LTD. • Starex
Availability	• Africa & Middle East • Asia Pacific • Europe • Latin America • North America
Filler / Reinforcement	• Glass Fiber
Features	• General Purpose
Uses	• Appliances

Physical	Nominal Value Unit	Test Method
Density / Specific Gravity (Natural)	1.18 g/cm ³	ASTM D792 ISO 1183
Melt Mass-Flow Rate (MFR) (220°C/10.0 kg)	7.0 g/10 min	ASTM D1238 ISO 1133
Molding Shrinkage - Flow (3.20 mm)	0.10 to 0.30 %	ASTM D955
Ash Content		
--	20 %	ASTM D5630
--	20 %	ISO 3451

Mechanical	Nominal Value Unit	Test Method
Tensile Modulus		
-- ⁴	5300 MPa	ASTM D638
--	5600 MPa	ISO 527-2/50
Tensile Strength		
Yield ⁴	78.0 MPa	ASTM D638
Yield	85.0 MPa	ISO 527-2/50
Break ⁴	93.0 MPa	ASTM D638
Break	101 MPa	ISO 527-2/50
Tensile Elongation		
Break ⁴	2.9 %	ASTM D638
Break	2.8 %	ISO 527-2/50
Flexural Modulus		
-- ⁵	4800 MPa	ASTM D790
-- ⁶	5700 MPa	ISO 178
Flexural Strength		
-- ⁵	88.0 MPa	ASTM D790
-- ⁶	110 MPa	ISO 178

Impact	Nominal Value Unit	Test Method
Charpy Notched Impact Strength ⁷ (23°C)	9.0 kJ/m ²	ISO 179/1eA
Notched Izod Impact		
23°C, 3.18 mm	59 J/m	ASTM D256
23°C ⁷	8.0 kJ/m ²	ISO 180/1A



Starex GR-4020

Acrylonitrile Butadiene Styrene

LOTTE ADVANCED MATERIALS CO., LTD.

PROSPECTOR®

www.ulprospector.com

Hardness	Nominal Value Unit	Test Method
Rockwell Hardness		
R-Scale	112	ASTM D785
R-Scale	114	ISO 2039-2
Thermal	Nominal Value Unit	Test Method
Deflection Temperature Under Load		
1.8 MPa, Unannealed, 6.40 mm	101 °C	ASTM D648
1.8 MPa, Unannealed, 4.00 mm	101 °C	ISO 75-2/A
Vicat Softening Temperature		
--	107 °C	ISO 306/B50
--	112 °C	ISO 306/B120
--	111 °C	
Flammability	Nominal Value Unit	Test Method
Flame Rating		UL 94
1.5 mm	HB	
3.0 mm	HB	
6.0 mm	HB	
Injection	Nominal Value Unit	
Drying Temperature		
--	80 °C	
Desiccant Dryer	80 °C	
Drying Time		
--	2.0 to 4.0 hr	
Desiccant Dryer	2.0 to 3.0 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	240 °C	
Mold Temperature	40 to 80 °C	
Injection Pressure	49.0 to 245 MPa	
Back Pressure	0.490 to 1.96 MPa	
Screw Speed	50 to 150 rpm	

Notes

¹ 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.

² 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.

³ Typical properties: these are not to be construed as specifications.

⁴ 5.0 mm/min

⁵ 2.8 mm/min

⁶ 2.0 mm/min

⁷ Thickness: 4mm



Starex GR-4020

Acrylonitrile Butadiene Styrene

LOTTE ADVANCED MATERIALS CO., LTD.

PROSPECTOR®

www.ulprospector.com

Where to Buy

Supplier

LOTTE ADVANCED MATERIALS CO., LTD.

Seoul, South Korea

Telephone: +82-31-596-3408

Web: <http://www.lotteadms.com/>



Starex GR-4020

Acrylonitrile Butadiene Styrene

LOTTE ADVANCED MATERIALS CO., LTD.

PROSPECTOR®

www.ulprospector.com

Distributor

ALBIS Plastic

ALBIS Plastic is a global distribution and compounding company. Contact ALBIS Plastic for availability of individual products per country.

Telephone: +49-40-78105-0

Web: <http://www.albis.com/>

Availability: Turkey

Amco Polymers

Telephone: 800-262-6685

Web: <http://www.amcopolymers.com/>

Availability: North America

API-Kolon Engineering Plastics

Telephone: 847-550-5556

Web: <http://www.apikolon.com/>

Availability: Mexico, North America, South America

Channel Prime Alliance

Telephone: 800-247-8038

Web: <http://www.channelpa.com/>

Availability: North America

ESSE International - OMYA

ESSE International - OMYA is a Pan European distribution company. Contact ESSE International - OMYA for availability of individual products by country.

Telephone: +33-1-30-80-56-56

Web: <http://www.omya.com>

Availability: Europe

GAZECHIM PLASTIQUES

GAZECHIM PLASTIQUES is a Pan European distribution company. Contact GAZECHIM PLASTIQUES for availability of individual products by country.

Telephone: +33-4-67-49-55-37

Web: <http://www.gazechim.com/>

Availability: Belgium, France, Netherlands, Romania, United Kingdom

M. Holland Canada Company

Telephone: 905-665-1168

Web: <http://www.mholland.com/>

Availability: Canada

M. Holland Company

Telephone: 855-497-1403

Web: <http://www.mholland.com/>

Availability: Mexico, United States

Osterman & Company

Telephone: 800-914-4437

Web: <http://www.osterman-co.com/>

Availability: North America

Telko Oy

Telko Oy is a Pan European distribution company. Contact Telko Oy for availability of individual products by country.

Telephone: +358-9-5211

Web: <http://www.telko.com/>

Availability: Denmark, Finland, Norway, Sweden

TER HELL PLASTIC GMBH

TER HELL PLASTIC is a Pan European distribution company. Contact TER HELL PLASTIC for availability of individual products by country.

Telephone: +49-232-3941-0

Web: <http://www.terhell.de/>

Availability: Germany

Tex-Co Resin Distribution, Inc.

Telephone: 877-908-3926

Web: <http://www.texcoresin.com/>

Availability: North America



Starex GR-4020

Acrylonitrile Butadiene Styrene

LOTTE ADVANCED MATERIALS CO., LTD.

PROSPECTOR®

www.ulprospector.com

The Materials Group

Telephone: 616-863-6046

Web: <http://thematerialsgroup.com/>

Availability: North America

Ultrapolymers

Ultrapolymers is a Pan European distribution company. Contact Ultrapolymers for availability of individual products by country.

Telephone: +32-11-57-95-57

Web: <http://www.ultrapolymers.com/>

Availability: South Africa

