EL-Lene™ H5480S

High Density Polyethylene

SCG Chemicals Co., Ltd.

PROSPECTOR®

www.ulprospector.com

Technical Data

Product Description

EL-Lene H5480S is a high density polyethylene resin which is suitable for producing monofilament or flat yarn products. It is manufacturered by extrusion process with spinnerette die, T-die, annular die, coathanger die, etc.

General

Material Status	• Commercial: Active		
Literature [1]	• Technical Datasheet (English)		
Availability	• Asia Pacific	• North America	
Features	• Food Contact Acceptable	• Good Colorability	• High Tensile Strength
Uses	• High Tenacity Flat Yarn • Monofilaments	• Netting • Rope	
Agency Ratings	• FDA 21 CFR 177.1520		
Forms	• Pellets		
Processing Method	• Filament Extrusion		

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	0.954 g/cm³	0.954 g/cm³	ASTM D1505
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	0.80 g/10 min	0.80 g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (ESCR)			ASTM D1693B
122°F (50°C), 25% Igepal, Compression Molded, F50	30.0 hr	30.0 hr	
Mechanical	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Tensile Strength [3]			ASTM D638
Yield	3840 psi	26.5 MPa	
Break	5550 psi	38.2 MPa	
Tensile Elongation [3] (Break)	1200 %	1200 %	ASTM D638
Flexural Modulus	142000 psi	981 MPa	ASTM D790
Impact	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Notched Izod Impact			ASTM D256
32°F (0°C)	2.6 ft·lb/in	140 J/m	
73°F (23°C)	3.1 ft·lb/in	170 J/m	
Hardness	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Durometer Hardness (Shore D)	65	65	ASTM D2240
Thermal	**Nominal Value (English)**	**Nominal Value (SI)**	**Test Method**
Brittleness Temperature	< -76.0 °F	< -60.0 °C	ASTM D746
Vicat Softening Temperature	259 °F	126 °C	ASTM D1525
Melting Temperature	268 °F	131 °C	ASTM D2117

Extrusion Notes

Monofilament Processing-
Melt temperature range: 250 to 280°C
Stretching Temperature: 96 to 100°C
Stretching Ratio: 8 to12
Flat yarn Processing -
Melt temperature range: 190 to 260°C
Stretching Temperature: 100 to 130°C
Stretching Ratio: 5 to 7

Form No. TDS-62004-en

UL and the UL logo are trademarks of UL LLC © 2017. All Rights Reserved.
UL Prospector | 800-788-4668 or 307-742-9227 | www.ulprospector.com.

The information presented here was acquired by UL from the producer of the product or material or original information provider. However, UL assumes no responsibility or liability for the accuracy of the information contained on this website and strongly encourages that upon final product or material selection information is validated with the manufacturer. This website provides links to other websites owned by third parties. The content of such third party sites is not within our control, and we cannot and will not take responsibility for the information or content.

Document Created: Sunday, October 22, 2017
Added to Prospector: February 2003
Last Updated: 3/7/2014

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

[3] 2.0 in/min (50 mm/min)

Form No. TDS-62004-en

UL and the UL logo are trademarks of UL LLC © 2017. All Rights Reserved.
UL Prospector | 800-788-4668 or 307-742-9227 | www.ulprospector.com.

The information presented here was acquired by UL from the producer of the product or material or original information provider. However, UL assumes no responsibility or liability for the accuracy of the information contained on this website and strongly encourages that upon final product or material selection information is validated with the manufacturer. This website provides links to other websites owned by third parties. The content of such third party sites is not within our control, and we cannot and will not take responsibility for the information or content.

Document Created: Sunday, October 22, 2017
Added to Prospector: February 2003
Last Updated: 3/7/2014