

Styrolution PS 147F

General Purpose Polystyrene

INEOS Styrolution Group GmbH

PROSPECTOR[®]

www.ulprospector.com

Technical Data

Product Description

Styrolution PS 147F is a highly transparent GPPS grade. It gives excellent mechanical and heat resistance properties while providing with easy processability and short cycle time.

FEATURES

- Medium Flow
- Easy processability
- Good mechanical and heat resistance properties

APPLICATIONS

- Transparent parts for refrigerators such as fruit and vegetable crispers, chillers, flaps, trays etc
- Stationery products like pen barrels, scales etc.
- Household applications such as crystalware, kitchen containers etc.
- Packaging applications such as chocolate boxes, display cabinets, etc.
- Other transparent articles in injection Molding applications

General

Material Status	• Commercial: Active
Literature ¹	• Technical Datasheet (English)
Search for UL Yellow Card	• INEOS Styrolution Group GmbH • Styrolution PS
Availability	• Asia Pacific
Features	• Fast Molding Cycle • General Purpose • Good Processability • High Heat Resistance • Medium Flow
Uses	• Appliance Components • Containers • Household Goods • Packaging • Stationary Supplies
Appearance	• Clear/Transparent
Forms	• Pellets
Processing Method	• Extrusion • Injection Molding

Physical	Nominal Value (English)	Nominal Value (SI)	Test Method
Density	1.05 g/cm ³	1.05 g/cm ³	ISO 1183
Melt Volume-Flow Rate (MVR) (200°C/5.0 kg)	0.397 in ³ /10min	6.50 cm ³ /10min	ISO 1133
Molding Shrinkage	0.30 to 0.60 %	0.30 to 0.60 %	ISO 294-4
Water Absorption			ISO 62
Saturation, 73°F (23°C)	< 0.10 %	< 0.10 %	
Equilibrium, 73°F (23°C), 50% RH	< 0.10 %	< 0.10 %	

Mechanical	Nominal Value (English)	Nominal Value (SI)	Test Method
Tensile Modulus	479000 psi	3300 MPa	ISO 527-2
Tensile Stress (Yield, 73°F (23°C))	7250 psi	50.0 MPa	ISO 527-2
Tensile Strain (Break, 73°F (23°C))	3.0 %	3.0 %	ISO 527-2
Flexural Stress	14200 psi	98.0 MPa	ISO 178

Impact	Nominal Value (English)	Nominal Value (SI)	Test Method
Charpy Notched Impact Strength (73°F (23°C))	1.4 ft·lb/in ²	3.0 kJ/m ²	ISO 179
Charpy Unnotched Impact Strength 73°F (23°C)	8.1 ft·lb/in ²	17 kJ/m ²	ISO 179

Hardness	Nominal Value (English)	Nominal Value (SI)	Test Method
Ball Indentation Hardness	21800 psi	150 MPa	ISO 2039-1



Thermal	Nominal Value (English)	Nominal Value (SI)	Test Method
Heat Deflection Temperature ³			
66 psi (0.45 MPa), Annealed	199 °F	93.0 °C	ISO 75-2/B
264 psi (1.8 MPa), Annealed	185 °F	85.0 °C	ISO 75-2/A
Vicat Softening Temperature			
--	212 °F	100 °C	ISO 306/A50
--	203 °F	95.0 °C	ISO 306/B50
Electrical	Nominal Value (English)	Nominal Value (SI)	Test Method
Surface Resistivity	> 1.0E+14 ohms	> 1.0E+14 ohms	IEC 60093
Volume Resistivity	> 1.0E+18 ohms·cm	> 1.0E+18 ohms·cm	IEC 60093
Electric Strength ⁴ (0.0591 in (1.50 mm))	3400 V/mil	140 kV/mm	IEC 60243-1
Relative Permittivity			IEC 60250
100 Hz	2.50	2.50	
1 MHz	2.50	2.50	
Injection	Nominal Value (English)	Nominal Value (SI)	
Processing (Melt) Temp	356 to 500 °F	180 to 260 °C	
Mold Temperature	50 to 140 °F	10 to 60 °C	
Injection Velocity	472 in/min	12 m/min	
Extrusion	Nominal Value (English)	Nominal Value (SI)	
Melt Temperature	< 500 °F	< 260 °C	

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 4h/80°C

⁴ Short Time



Where to Buy

Supplier

INEOS Styrolution Group GmbH
Frankfurt, Germany
Telephone: +49 69 5095501200
Web: <http://www.ineos-styrolution.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: Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Hungary, Ireland, Latvia, Lithuania, Luxembourg, Netherlands, Norway, Poland, Romania, Russian Federation, Slovakia, Sweden, Switzerland, United Kingdom

