

Technical Data Sheet : CertyForm R1321

Polypropylene, Random Copolymer

Product Description

The polymer grade is a polypropylene random copolymer for usage in injection moulding applications. Contains a slip agent and exhibits good transparency. Designed for empty disposable two part syringes.

Detailed information on health and safety, regulatory compliance status, and any supported, prohibited, or restricted applications is available in the Product Regulatory Summary (PRS) and the applicable Safety Data Sheet (SDS).

General

Application	Healthcare Applications; Syringes
Market	Healthcare
Processing Method	Injection Molding
Attribute	Autoclavable; Ethylene Oxide Sterilisation; Good Optical Properties; Medium Flow; Medium Slip; Random Copolymer
Internal reference	1Q253, BEN33825
Revision	Version 2.1 : September 7, 2026

Properties	Typical Value	Unit	Method
Polymer properties			
Density, (23 °C)	0.9	g/cm ³	ISO 1183-1
Melt Flow Rate (MFR)			
at 230 °C and 2.16 kg	25	g/10 min	ISO 1133-1
Mechanical properties			
Charpy Impact Strength			
at 0°C, Type 1, Edgewise, Notch A	2.5	kJ/m ²	ISO 179
at 23 °C, Type 1, Edgewise, Notch A	6	kJ/m ²	ISO 179
Tensile test			
Strain at Yield	15	%	ISO 527-1, -2
Strain at Break	>50	%	ISO 527-1, -2
Stress at Yield	27	MPa	ISO 527-1, -2
Tensile Modulus	1000	MPa	ISO 527-1, -2
Thermal properties			
Heat Deflection Temperature B, (0.45 MPa, Unannealed)	72	°C	ISO 75-1, -2
Vicat Softening Temperature			
(A/50)	130	°C	ISO 306
Optical properties			
Haze, (1 mm - injection molded disc)	9	%	ASTM D1003

Storage and Handling

The polymer grade is supplied in 25 kg bags, octabins, or bulk containers designed to protect the material from contamination. During storage, the resin should be protected from direct sunlight, temperatures above (<50 °C), and high atmospheric humidity. Prolonged exposure to sunlight, elevated temperatures, or high humidity may accelerate material degradation, reduce storage life, and adversely affect the quality of both the resin and its packaging. If the material is stored under conditions involving significant temperature fluctuations and high humidity, moisture may condense inside the packaging. In such cases, it is recommended to dry the resin before use and to ensure that the material remains completely dry to achieve optimal processing performance. Unfavorable storage conditions may also intensify the resin's slight characteristic odor.

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Processing Techniques

Users should determine the conditions necessary to obtain optimum product properties and suitability of the product for the intended application. In cases where higher temperatures are required, please contact your appropriate technical contact for support.

Company Information

For further information regarding the Velogy, please visit <http://www.velogy.com>

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