Velogy.
Aert van Nesstraat 45,
3012 CA Rotterdam, The Netherlands

Technical Data Sheet : KeyForm H1180

High Density Polyethylene

Product Description

The grade is a high density polyethylene resin stabilized to prevent UV degradation. It's used in general injection moulding applications such as pallets and dust bin bodies. Is available in pellet form, and exhibits high ESCR, good impact resistance, flowability and low warpage.

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	Crates; Housewares; Industrial; Panels & Profiles; Sports, Leisure & Toys
Market	Consumer Products; Rigid Packaging
Processing Method	Injection Molding
Attribute	Antioxidant; Good Flow; Good Processability; High Density; High Impact Resistance; High Rigidity; Low Warpage; UV Resistant
Internal reference	1Q005, BEN7801
Revision	Version 2 : September 8, 2026

Properties	Typical Value	Unit	Method
Polymer properties			
Density	0.955	g/cm^3	ISO 1183-1
Melt Flow Rate (MFR)			
at 190 °C and 2.16 kg	4	g/10 min (dg/min)	ISO 1133-1
at 190 °C and 5.0 kg	11	g/10 min (dg/min)	ISO 1133-1
Mechanical properties			
Charpy Impact Strength			
at -30 °C, Type 1, Edgewise, Notch A	4.5	kJ/m^2	ISO 179
at 23 °C, Type 1, Edgewise, Notch A	4	kJ/m^2	ISO 179
Full-Notch Creep Test (FNCT) - Environmental stress cracking (ESC)			
(6.0 Mpa, 2% Arkopal N100, 50 °C)	4.5	hr	ISO 16770
Hardness			
Shore Hardness, (Shore D)	60		ISO 868
Tensile test			
Tensile Modulus	1200	MPa	ISO 527-1, -2
Strain at Yield	8	%	ISO 527-1, -2
Stress at Yield	27	MPa	ISO 527-1, -2
Thermal properties			
Vicat Softening Temperature			
(B/50)	73	°C	ISO 306
Processing Parameters			
Melt Temperature	180 - 250	°C	

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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