Technical Information

DOW™ HDPE KS 10100 UE
High Density Polyethylene Resin

Overview

HDPE KS 10100 UE Polyethylene Resin is a high density polyethylene resin designed to exhibit improved processability, excellent impact strength, stress crack resistance and UV stability for outdoor use, at minimum warpage.

Note: HDPE KS 10100 UE Polyethylene Resin should comply with FDA regulation 177.1520 and with most European food contact regulations when used unmodified and processed according to good manufacturing practices for food contact applications. Please, contact your nearest Dow office for food contact compliance statements. The purchaser remains responsible for determining whether the use complies with all relevant regulations.

Applications:

- Waste bins.
- Large containers.
- Tough parts.

Additive

- Antiblock: No
- Slip: No
- Processing Aid: No

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Density	0.955	g/cm³	0.955	g/cm³	ASTM D792
Melt Index					ISO 1133
190°C/2.16 kg	4.0	g/10 min	4.0	g/10 min	
190°C/5.0 kg	12	g/10 min	12	g/10 min	
Spiral Flow [1, 2]	25.0	in	63.5	cm	Dow Method
Molding Shrinkage - Flow [3] (482°F (250°C))	0.026	in/in	2.6	%	ASTM D955
Environmental Stress-Cracking Resistance (ESCR) [4]					ASTM D1693
122°F (50°C), 100% Antarox, Compression Molded	10.0	hr	10.0	hr	
Mechanical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Tensile Strength					ASTM D638
Yield, Compression Molded	3630	psi	25.0	MPa	
Break, Compression Molded	3920	psi	27.0	MPa	
Tensile Elongation					ASTM D638
Break, Compression Molded	> 1600	%	> 1600	%	
Flexural Modulus - 2% Secant (Compression Molded)	123000	psi	850	MPa	ASTM D790
Impact	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Tensile Impact Strength (Compression Molded)	40.4	ft·lb/in²	85.0	kJ/m²	ASTM D1822
Hardness	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Shore Hardness (Shore D, Compression Molded)	65		65		ISO 868
Thermal	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Vicat Softening Temperature	262	°F	128	°C	ISO 306/A

Notes

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

[1] Melt Temperature: 482°F (250°C)

[2] 2 seconds injection

[3] 0.5 seconds injection

[4] Notched

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Manufacturer website: https://www.dow.com/en-us/market/mkt-polyethylene.html

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