

DOW™ HDPE KS 10100 UE

The Dow Chemical Company - High Density Polyethylene Resin

Tuesday, March 10, 2020

General Information

Product Description

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.

General

Material Status	• Commercial: Active
Availability	• Asia Pacific • Europe
Additive	• Antiblock: No • Processing Aid: No • Slip: No
Agency Ratings	• FDA 21 CFR 175.1520
Forms	• Pellets

ASTM & ISO Properties¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.955	g/cm ³	ASTM D792
Melt Mass-Flow Rate (MFR)			ISO 1133
190°C/2.16 kg	4.0	g/10 min	
190°C/5.0 kg	12	g/10 min	
Spiral Flow ^{2,3}	63.5	cm	Internal Method
Molding Shrinkage - Flow ⁴ (250°C)	2.6	%	ASTM D955
Environmental Stress-Cracking Resistance (ESCR) ⁵			ASTM D1693
50°C, 100% Antarox, Compression Molded	10.0	hr	
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength (Yield, Compression Molded)	25.0	MPa	ASTM D638
Tensile Strength (Break, Compression Molded)	27.0	MPa	ASTM D638
Tensile Elongation (Break, Compression Molded)	> 1600	%	ASTM D638
Flexural Modulus - 2% Secant (Compression Molded)	850	MPa	ASTM D790
Impact	Nominal Value	Unit	Test Method
Tensile Impact Strength (Compression Molded)	85.0	kJ/m ²	ASTM D1822
Hardness	Nominal Value	Unit	Test Method
Shore Hardness (Shore D, Compression Molded)	65		ISO 868
Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	128	°C	ISO 306/A

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Notes

¹ Typical properties: these are not to be construed as specifications.

² Melt Temperature: 250°C

³ 2 seconds injection

⁴ 0.5 seconds injection

⁵ Notched