



DOW™ HDPE 04852N

The Dow Chemical Company - High Density Polyethylene Resin

Tuesday, November 5, 2019

General Information

Product Description

DOW HDPE 04852N High Density Polyethylene Resin (HDPE) is a narrow molecular weight distribution copolymer designed to offer excellent impact strength and toughness combined with good stiffness. This resin has good processability over a wide range of molding conditions. It is intended for use in injection molding applications such as pails, industrial parts and other shipping containers; it can also be used for structural foamed parts.

- Excellent impact strength and toughness
- Good stiffness
- For injection molded pails, industrial parts, shipping containers and structural foamed parts.

Complies with:

- U.S. FDA 21 CFR 177.1520(c)3.2a
- Canadian HPFB No Objection

Consult the regulation for complete details.

Additive:

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

General

Material Status	• Commercial: Active
Availability	• North America
Additive	• Antiblock: No • Processing Aid: No • Slip: No
Agency Ratings	• FDA 21 CFR 177.1520(c) 3.2a • HPFB (Canada) No Objection
Forms	• Pellets

ASTM & ISO Properties ¹

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.954		ASTM D792
Melt Mass-Flow Rate (190°C/2.16 kg)	4.8	g/10 min	ASTM D1238
Environmental Stress-Cracking Resistance (ESCR) ² 122°F, 100% Igepal, F50	22.0	hr	ASTM D1693
Mechanical	Nominal Value	Unit	Test Method
Tensile Strength ³ (Yield)	3900	psi	ASTM D638
Tensile Strength ³ (Break)	4500	psi	ASTM D638
Tensile Elongation ³ (Yield)	10	%	ASTM D638
Tensile Elongation ³ (Break)	1200	%	ASTM D638
Flexural Modulus ³	160000	psi	ASTM D790B
Impact	Nominal Value	Unit	Test Method
Tensile Impact Strength ^{4, 3}	45.0	ft-lb/in ²	ASTM D1822
Thermal	Nominal Value	Unit	Test Method
Brittleness Temperature ³	< -105	°F	ASTM D746
Vicat Softening Temperature	266	°F	ASTM D1525
Melting Temperature (DSC)	268	°F	Internal Method

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Thermal	Nominal Value	Unit	Test Method
Peak Crystallization Temperature (DSC)	246	°F	Internal Method

Additional Information

Plaque molded and tested in accordance with ASTM D 4976.

Notes

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

² Molded and tested in accordance with ASTM D4976

³ Molded and tested in accordance with ASTM D4976.

⁴ Type S