



Industry essential resins
for blow molding and
injection molding



Product Portfolio

DOW High Density Polyethylene

Plastics – Asia Pacific

High Density Polyethylene Resins

High Density Polyethylene (HDPE) Resins from The Dow Chemical Company (Dow) provide toughness, rigidity and impact strength for blow molding applications and injection molded items.

Blow Molding

DOW™ HDPE Resins offer an excellent combination of stiffness and environmental stress crack resistance, making them the materials of choice for many applications in personal care, household, industrial containers and bottle products.

UNIVAL™ High Density Polyethylene Resins

Developed for blow molded bottles, drums and other industrial containers, UNIVAL™ High Density Polyethylene (HDPE) Resins deliver excellent rigidity, superior stress crack resistance, high impact and melt strength, and moderate swell. UNIVAL HDPE Resins are used to produce bottles up to 20 gallons in size covering household and industrial chemicals; toiletries and cosmetics; health and medicinal aids; food products; and milk, juice and water bottles.

Injection Molding

DOW™ HDPE Resins offer both impact strength and processability – the two properties that every injection molding processor wants, but rarely achieves at the same time. This advantage is available across the wide spectrum of end-use applications. Dow's range includes homopolymers and copolymers that exhibit outstanding flow, rigidity, low warpage, low taste/odor contributions, and downgauging capabilities.



Table 1: HDPE Resins for Blow Molded Rigid Packaging Applications⁽¹⁾

Resin Name	Product Description; Market Application(s)	Melt Index ⁽²⁾ (I ₂), g/10 min	Flow Rate ⁽³⁾ (I ₂₁), g/10 min	Density ⁽⁴⁾ , g/cm ³	Tensile Strength @ Yield ⁽⁵⁾ , psi	2% Secant Flexural Modulus ⁽⁶⁾ , psi	Tensile Impact Strength ⁽⁷⁾ , ft.-lb./in. ²	ESCR ⁽⁸⁾ , 122°F (50°C), F50, 100% Igepal, hrs.	FDA Compliance – U.S. FDA 21 CFR 177.1520 (c) ⁽⁹⁾
UNIVAL™ HDPE Copolymer Products									
UNIVAL DMDA-6230 NT 7	Household & Industrial Chemical (HIC), Personal Care, Agricultural Bottles, High ESCR	0.25	25	0.949	3,400	130,000	130	180	3.2a
UNIVAL DMDA-6200 NT 7	Household & Industrial Chemical (HIC) Personal Care, Food Packaging	0.38	33	0.953	3,900	150,000	120	50	3.2a
UNIVAL DMDA-6320 NT 7	Household & Industrial Chemical (HIC) Personal Care, Food Packaging	0.46	39	0.953	3,900	150,000	130	40	3.2a
UNIVAL™ HDPE Homopolymer Products									
UNIVAL DMDH-6400 NT 7	Milk, Water, Juice	0.80	57	0.961	4,600	180,000	70	20	2.2

Table 2: HDPE Resins for Injection Molded Rigid Packaging Applications⁽¹⁾

Resin Name	Product Description; Market Application(s)	Melt Index ⁽²⁾ (I ₂), g/10 min	Density ⁽⁴⁾ , g/cm ³	Tensile Strength @ Yield ⁽⁵⁾ , psi	2% Secant Flexural Modulus ⁽⁶⁾ , psi	Tensile Impact Strength ⁽⁷⁾ , ft.-lb./in. ²	ESCR ⁽⁸⁾ , 122°F (50°C), F50, 100% Igepal, hrs.	FDA Compliance – U.S. FDA 21 CFR 177.1520 (c) ⁽⁹⁾
DOW DMDA-8904 NT 7	General Purpose; Pails, UN Qualified, Caps & Closures	4.4	0.952	3,900	160,000	40	22	3.1a
DOW DMDA-8007 NT 7	General Purpose; Crates, Trays, Pallets	8.2	0.965	4,500	205,000	80	2	2.2
DOW DMDA-8920 NT 7	General Purpose; Housewares, Toys, Food Containers, Pails	20	0.954	4,100	167,000	20	3	3.1a

⁽¹⁾ Properties shown represent typical values; not to be construed as specifications. Users should confirm results by their own tests.

⁽²⁾ ASTM D 1238 (190°C/2.16 kg)

⁽³⁾ ASTM D 1238 (190°C/21.6 kg)

⁽⁴⁾ ASTM D 792

⁽⁵⁾ ASTM D 638, molded and tested in accordance with ASTM D 4976

⁽⁶⁾ ASTM D 790B, molded and tested in accordance with ASTM D 4976

⁽⁷⁾ ASTM D 1822, Type S, molded and tested in accordance with ASTM D 4976

⁽⁸⁾ ASTM D 1693, molded and tested in accordance with ASTM D 4976

⁽⁹⁾ Consult the regulations for complete details

Refer to individual technical data sheets (TDS) for additional property information and handling considerations.



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