Product Information

Dow Plastics

UNIVAL DMDH-6400 NT 7

High Density Polyethylene Resin

- Maximum rigidity
- High impact strength
- Top load strength
- Moderate swell
- Complies with U.S. FDA 21 CFR 177.1520 (c) 2.2
  Consult the regulations for complete details.

UNIVAL™ DMDH-6400 NT 7 High Density Polyethylene (HDPE) Resin is a multi-purpose polymer designed for producing containers used to package dairy, water and fruit drinks. In addition, it can be blow molded into other thin-walled parts and houseware items.

Physical Properties	Test Method	Values[1] English (SI)
Resin Properties		
Flow Rate (I_{21}) @190°C/21.60 kg, g/10 min	ASTM D 1238	57
Melt Index (I_2) @190°C/2.16 kg, g/10 min	ASTM D 1238	0.80
Density, g/ cm^3	ASTM D 792	0.961
DSC Melting Point, °F (°C)	Dow Method	271 (133)
DSC Crystallization Point, °F (°C)	Dow Method	248 (120)
Vicat Softening Point, °F (°C)	ASTM D 1525	268 (131)
Molded Plaque Properties[2]		
Hardness, Shore D	ASTM D 2240	66
Flexural Modulus, 2% Secant, psi (MPa)	ASTM D 790 B	188,000 (1296)
Tensile Strength at Break, psi (MPa)	ASTM D 638	3500 (24)
Tensile Strength at Yield, psi (MPa)	ASTM D 638	4600 (32)
Tensile Elongation at Break, %	ASTM D 638	1000
Tensile Elongation at Yield, %	ASTM D 638	7
Tensile Impact Strength, ft·lb/in.^{2} (kJ/m^2)	ASTM D 1822, Type S	40 (84)
Environmental Stress Crack Resistance, 122°F (50°C), F_{50}, 100% Igepal®, hrs.	ASTM D 1693	20
Brittleness Temperature, °F (°C)	ASTM D 746	<-105 (<-76)
Deflection Temperature Under Load @ 66 psi (0.45 MPa), °F (°C)	ASTM D 648	169 (76)

(1) Typical values, not to be construed as specifications. Users should confirm results by their own tests.
(2) Molded and tested in accordance with ASTM D4976.

-See "Handling Considerations" attached

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Handling Considerations

Material Safety Data (MSD) sheets for the product are available from Dow Plastics, a business group of The Dow Chemical Company and its subsidiaries, to help customers further satisfy their own safe handling and disposal needs and those that may be required by OSHA. Material Safety Data sheets on Dow products are intended to provide customers with essential information on such topics as Health and Worker Safety, Combustibility, and Disposal Considerations. Such information should be requested from the supplier(s) of any product(s) prior to working with it. As various additives and processing aids used in fabrication have their own safe use profile, their possible influence on handling and disposal must be investigated separately. For "Regulated" uses, such as food contact, your Dow sales representative can obtain compliance letters for specific resins.

Disposal

DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal methods must be in compliance with all Federal, State/provincial, and local laws and regulations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. THE DOW CHEMICAL COMPANY HAS NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION 2 (Composition/Information On Ingredients). FOR UNUSED AND UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: recycler, reclaimer, incinerator or other thermal destruction device, and landfill. These polymers have high heat values and should be incinerated only in units designed to handle high heats of combustion. In landfill, these polymers are inert, do not degrade quickly, form a strong and permanent soil base, and evolve virtually no gases or leachates known to pollute water resources.

As a service to its customers, Dow can provide names of information resources to help identify waste management companies and other facilities which recycle, reprocess, or manage chemicals or plastics, and that manage used drums. For more details, contact The Dow Chemical Company Customer Information Center at 1-800-441-4369. In Mexico, call 95-800-441-4369.

Product Stewardship

The Dow Chemical Company has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. This concern is the basis for our Product Stewardship philosophy by which we assess the health and environmental information on our products and take appropriate steps to protect employee and public health, and our environment. Our Product Stewardship program rests with each and every individual involved with Dow products – from the initial concept and research, to manufacture, use, sale, and disposal of each product.

Customer Notice

Dow strongly encourages its customers to review both their manufacturing processes and their applications of Dow products from the standpoint of human health and environmental quality to help ensure that Dow products are not used in ways for which they are not intended or tested. Dow personnel will assist customers in dealing with ecological and product safety considerations. Dow product literature, including MSD sheets, should be consulted prior to use of Dow products. Your Dow Plastics sales representative can arrange the proper contacts, or write to Dow Plastics.

Additional Information

For more information in the United States or Canada, call 1-800-441-4369. In Mexico, call 95-800-441-4369.

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DOW*
Dow Plastics

We don't succeed unless you do.

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