



# DOW Polyethylene 17450N

## High Density

- For toys and housewares
- Good low temperature impact strength, gloss and excellent toughness
- Complies with U.S. FDA 21 CFR 177.1520 (c) 3.2a.  
Consult the regulations for complete details.

DOW Polyethylene 17450N High Density is a narrow molecular weight distribution copolymer designed to offer low temperature impact strength and gloss with excellent toughness. This resin has good processability over a wide range of molding conditions.

Physical Properties	Test Method	Values <sup>(1)</sup> English (SI)
<b>Resin Properties</b>		
Melt Index (I <sub>2</sub> ) @190°C/2.16 kg, g/10 min	ASTM D 1238	17
Density, g/ cm <sup>3</sup>	ASTM D 792	0.950
DSC Melting Point, °F (°C)	Dow Method	262 (128)
DSC Crystallization Point, °F (°C)	Dow Method	239 (115)
Vicat Softening Point, °F (°C)	ASTM D 1525	259 (126)
<b>Molded Plaque Properties<sup>(2)</sup></b>		
Hardness, Shore D	ASTM D 2240	62
Flexural Modulus, 2% Secant, psi (MPa)	ASTM D 790 B	114,000 (993)
Tensile Strength at Break, psi (MPa)	ASTM D 638	1800 (12)
Tensile Strength at Yield, psi (MPa)	ASTM D 638	3300 (23)
Tensile Elongation at Break, %	ASTM D 638	300
Tensile Elongation at Yield, %	ASTM D 638	3
Tensile Impact Strength, ft·lb/in. <sup>2</sup> (kJ/m <sup>2</sup> )	ASTM D 1822, Type S	140 (294)
Environmental Stress Crack Resistance, 122°F (50°C), F <sub>50</sub> , 100% Igepal®, hrs.	ASTM D 1693	3
Brittleness Temperature, °F (°C)	ASTM D 746	<-105 (<-76)
Deflection Temperature Under Load @ 66 psi (0.45 MPa), °F (°C)	ASTM D 648	149 (65)

(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.

## Product Stewardship

The Dow Chemical Company and its subsidiaries (Dow) 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 safety, health, and environmental information on our products and then take appropriate steps to protect employee and public health and our environment. The success of our Product Stewardship program rests with each and every individual involved with Dow products — from the initial concept and research, to manufacture, use, sale, disposal, and recycle 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 ensure that Dow products are not used in ways for which they are not intended or tested. Dow personnel are available to answer your questions and to provide reasonable technical support. Dow product literature, including safety data sheets, should be consulted prior to use of Dow products. Current safety data sheets are available from Dow.

## Dow Medical Application Policy

Dow will not knowingly sell or sample any product or service ("Product") into any commercial or developmental application that is intended for:

- permanent (Long term) contact with internal body fluids or internal body tissues. Long term is a use which exceeds 72 continuous hours (except 30 days for PELLETHANE™ polyurethane elastomers);
- use in cardiac prosthetic devices regardless of the length of time involved; (Cardiac prosthetic devices include, but are not limited to, pacemaker leads and devices, artificial hearts, heart valves, intra-aortic balloons and control systems, and ventricular bypass assisted devices);
- use as a critical component in medical devices that support or sustain human life; or
- use specifically by pregnant women or in applications designed specifically to promote or interfere with human reproduction.

Additionally, all Products intended for use in pharmaceutical applications, other than pharmaceutical packaging, must pass the current Pharmaceutical Liability Guidelines.

- For the products sold by the Plastics Portfolio, new business opportunities require a business assessment prior to sale or sampling of Dow products.
- Authorized distributors and resellers will adhere to this medical policy.
- The Dow Chemical Company does not endorse or claim suitability of their products for specific medical applications. It is the responsibility of the medical device or pharmaceutical manufacturer to determine that the Dow product is safe, lawful, and technically suitable for the intended use. DOW MAKES NO WARRANTIES, EXPRESS OR IMPLIED, CONCERNING THE SUITABILITY OF ANY DOW PRODUCT FOR USE IN MEDICAL APPLICATIONS.

## Disclaimer

NOTICE: No freedom from infringement of any patent owned by Dow or others is to be inferred. Because use conditions and applicable laws may differ from one location to another and may change with time, the Customer is responsible for determining whether products and the information in this document are appropriate for the Customer's use and for ensuring that the Customer's workplace and disposal practices are in compliance with applicable laws and other governmental enactments. Dow assumes no obligation or liability for the information in this document. **NO WARRANTIES ARE GIVEN; ALL IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE ARE EXPRESSLY EXCLUDED.**

NOTICE: If products are described as "experimental" or "developmental": (1) product specifications may not be fully determined; (2) analysis of hazards and caution in handling and use are required; and (3) there is greater potential for Dow to change specifications and/or discontinue production.

## Additional Information

<b>North America</b>		<b>Europe/Middle East</b>	+800-3694-6367
U.S. & Canada:	1-800-441-4369		+32-3-450-2240
	1-989-832-1426		
Mexico:	+1-800-441-4369		
<b>Latin America</b>		<b>South Africa</b>	+800-99-5078
Argentina:	+54-11-4319-0100		
Brazil:	+55-11-5188-9222		
Colombia:	+57-1-319-2100	<b>Asia Pacific</b>	+800-7776-7776
Mexico:	+52-55-5201-4700		+60-3-7958-3392

[www.dowplastics.com](http://www.dowplastics.com)

Published August 2005

