

ELITE 5401G

Enhanced Polyethylene Resin

- For food and specialty packaging films
- Superior impact resistance and tear properties
- Complies with U.S. FDA 21 CFR 177.1520 (c) 3.2a.
Consult the regulations for complete details.

Slip Additive: 1000 ppm
Antiblock Additive: 2500 ppm

ELITE* 5401G Enhanced Polyethylene Resin is a copolymer produced via INSITE* Technology

from Dow Plastics[†]. It offers a unique combination of low seal initiation, moderate stiffness and low blocking

for excellent performance on automated packaging equipment.

Physical Properties	Test Method		Values ⁽¹⁾ English (SI)
Resin Properties			
Melt Index, g/10 min	ASTM D 1238		1.0
Density, g/cc	ASTM D 792		0.9175
DSC Melting Point, °F (°C)	Dow Method		253 (123)
Vicat Softening Point, °F (°C)	ASTM D 1525		212 (100)
Film Properties, 2.0 mil (51 µm)			
Puncture Resistance, Energy, in.-lbf (J) Force, lbf (N)	Dow Method		168 (14)
			51 (6)
			18 (80)
Dart Impact (Method B), g	ASTM D 1709		>850
Elmendorf Tear, g	MD	ASTM D 1922	780
	CD		975
Tensile Yield, psi (MPa)	MD	ASTM D 882	1199 (8)
	CD		1278 (9)
Ultimate Tensile, psi (MPa)	MD	ASTM D 882	5517 (38)
	CD		5299 (37)
Ultimate Elongation, %	MD	ASTM D 882	572
	CD		612
Tensile Modulus, 2% Secant, psi (MPa)	MD	ASTM D 882	26231 (181)
	CD		29651 (204)
Gloss, 45°	ASTM D 2457		64
Haze, %	ASTM D 1003		13
Seal Initiation Temperature ⁽²⁾⁽³⁾ , °F (°C)	Dow Method		203 (95)

Fabrication Conditions For Blown Film:

- Screw Size: 2.5 in. (63.5 mm); 24:1 L/D
- Screw Type: Single Flight, Double Mix
- Die Gap: 70 mil (1.8 mm)
- Melt Temperature: 450°F (232°C)
- Output: 6 lb/hr/in. of die circumference
- Die Diameter: 6 in.
- Blow-Up Ratio: 2.5:1
- Screw Speed: 83 rpm
- Frost Line Height: 25 in. (635 mm)

- (1) Typical values, not to be construed as specifications. Users should confirm results by their own tests.
- (2) Temperature at which 2 lb/in. (8.8 N/25.4 mm) heat seal strength is achieved.
- (3) Heat Seal Strengths, Topwave HT Tester 0.5 S dwell, 40 psi bar pressure, pulled on Instron at 10 in./min (250 mm/sec).

*Trademark of The Dow Chemical Company

-See "Handling Considerations" attached

[†]Dow Plastics, a business group of The Dow Chemical Company and its subsidiaries.

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.

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, Customer is responsible for determining whether products and the information in this document are appropriate for Customer's use and for ensuring that 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.

NOTICE REGARDING MEDICAL APPLICATION RESTRICTIONS: The Polyolefins business of The Dow Chemical Company does not recommend any Dow product or sample product for use: (A) in any commercial or developmental application which is intended for contact with human internal body fluids or body tissues, regardless of the length of time involved; (B) in any cardiac prosthetic device application, regardless of the length of time involved, including, without limitation, pacemaker leads and devices, artificial hearts, heart valves, intra-aortic balloons and control systems, and ventricular bypass assisted devices; (C) as a critical component in any medical device that supports or sustains human life; and (D) specifically by pregnant women or in any applications designed specifically to promote or interfere with human reproduction.

Published May 2001

The Dow Chemical Company, 2040 Dow Center, Midland, MI 48674
Dow Chemical Canada Inc., 1086 Modeland Rd., P.O. Box 1012, Sarnia, Ontario, N7T 7K7, Canada
Dow Quimica Mexicana, S.A. de C.V., Torre Optima – Mezzanine, Av. Paseo de Las Palmas No. 405,
Col. Lomas de Chapultepec, 11000 Mexico, D.F., Mexico



Dow Plastics

We don't succeed unless you do.