DOW™ LDPE 582E
Low Density Polyethylene Resin

Overview

DOW LDPETM 582E Polyethylene Resin can be readily extruded using conventional blown film techniques utilising melt temperatures between 150 and 170°C. DOW LDPE 582E Polyethylene Resin, when properly fabricated, shows good mechanical properties and high optical properties. It shows very good drawdown properties and excellent processability. This product contains slip and antiblock additives.

Regulations:

DOW LDPE 582E Polyethylene Resin should comply with:

- U.S. FDA 21 CFR 177.1520(c) 2.2
- EU, No 10/2011
- U.S. FDA-DMF
- Consult the regulations for complete details.

Applications:

- Light produce bags.
- Soft goods packaging.
- Textile packaging.
- High clarity applications.

Additive

- Antiblock
- Slip

Physical	Nominal Value	(English)	Nominal Value	(SI)	Test Method
Density	0.923	g/cm³	0.923	g/cm³	ASTM D792
Melt Index (190°C/2.16 kg)	3.5	g/10 min	3.5	g/10 min	ISO 1133
Mechanical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Coefficient of Friction	0.16 to 0.20		0.16 to 0.20		ASTM D1894
Films	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Film Thickness - Tested	2	mil	50	µm	
Secant Modulus					ASTM D882
2% Secant, MD : 2.0 mil (50 µm)	27600	psi	190	MPa	
2% Secant, TD : 2.0 mil (50 µm)	25400	psi	175	MPa	
Tensile Strength					ASTM D882
MD : Yield, 2.0 mil (50 µm)	1310	psi	9.00	MPa	
TD : Yield, 2.0 mil (50 µm)	1310	psi	9.00	MPa	
MD : Break, 2.0 mil (50 µm)	2470	psi	17.0	MPa	
TD : Break, 2.0 mil (50 µm)	2180	psi	15.0	MPa	
Tensile Elongation					ASTM D882
MD : Break, 2.0 mil (50 µm)	450	%	450	%	
TD : Break, 2.0 mil (50 µm)	650	%	650	%	
Dart Drop Impact (2.0 mil (50 µm))	120	g	120	g	ASTM D1709A
Elmendorf Tear Strength					ASTM D1922
MD : 2.0 mil (50 µm)	500	g	500	g	
TD : 2.0 mil (50 µm)	400	g	400	g	
Thermal	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Vicat Softening Temperature	199	°F	93.0	°C	ISO 306/A
Optical	**Nominal Value**	**(English)**	**Nominal Value**	**(SI)**	**Test Method**
Gloss (20°, 1.97 mil (50.0 µm))	70		70		ASTM D2457
Haze (1.97 mil (50.0 µm))	7.00	%	7.00	%	ASTM D1003

Extrusion	Nominal Value	(English)	Nominal Value	(SI)
Melt Temperature	302 to 338	°F	150 to 170	°C

® ™ Trademark of The Dow Chemical Company (“Dow”) or an affiliated company of Dow.
Form No. 400-00084235en
Rev: 2013-05-20

Extrusion Notes
Blow-Up ratio 1:2.5

Notes

These are typical properties only and are not to be construed as specifications. Users should confirm results by their own tests.

® ™ Trademark of The Dow Chemical Company (“Dow”) or an affiliated company of Dow.
Form No. 400-00084235en
Rev: 2013-05-20

Product Stewardship

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.

Medical Applications Policy

Any and all medical application use of Dow materials, whether a device, a component, or any type of primary or secondary packaging of a medically related object or substance, needs to be reviewed and approved by Dow before any Dow material can be tested in such application.

Dow requests that customers considering use of Dow products in medical applications notify Dow so that appropriate assessments may be conducted. Dow does not endorse or claim suitability of its 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.**

For further information contact your Dow sales or technical representative to request a Medical Application Review Request Form.
Additional details of Dow's Medical Applications Policy are available at: https://www.dow.com/en-us/support/product-safety.html

Tobacco and Marijuana Policy

Dow does not support or intend for its products to be used, directly or indirectly, in the production of tobacco, the manufacture of tobacco products, the manufacture and use of electronic cigarettes (including vaping devices), the production of marijuana, or the manufacture of marijuana products intended for human consumption, where the Dow product (or its residues) may be present in the finished product or be alleged to facilitate the delivery of nicotine, other tobacco components, marijuana, or marijuana components.

Harmful Applications Policy

Dow does not intend for its products to be used in applications specifically intended to harm humans.

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; (3) there is greater potential for Dow to change specifications and/or discontinue production; and (4) although Dow may from time to time provide samples of such products, Dow is not obligated to supply or otherwise commercialize such products for any use or application whatsoever.

NOTICE: This data is based on information Dow believes to be reliable, as demonstrated in controlled laboratory testing. They are offered in good faith, but without guarantee, as conditions and method of use of Dow products are beyond Dow's control. Dow recommends that the prospective user determine the suitability of these materials and suggestions before adopting them on a commercial scale.

To the best of our knowledge, the information contained herein is accurate and reliable as of the date of publication, however we do not assume any liability for the accuracy and completeness of such information.

For additional information, not covered by the content of this document, contact us via our web site http://www.dow.com/products_services/.

® ™ Trademark of The Dow Chemical Company ("Dow") or an affiliated company of Dow.
Form No. 400-00084235en
Rev: 2013-05-20

Additional Information

North America		**Europe/Middle East**	+800-3694-6367
U.S. & Canada:	1-800-441-4369		+31-11567-2626
	1-989-832-1426	Italy:	+800-783-825
Mexico:	+1-800-441-4369		
Latin America		**South Africa**	+800-99-5078
Argentina:	+54-11-4319-0100		
Brazil:	+55-11-5188-9000		
Colombia:	+57-1-219-6000	**Asia Pacific**	+800-7776-7776
Mexico:	+52-55-5201-4700		+603-7965-5392

www.dow.com

This document is intended for use within Asia Pacific, Europe

Published: 2005-05-05

© 2021 The Dow Chemical Company

® ™ Trademark of The Dow Chemical Company (“Dow”) or an affiliated company of Dow.

Form No. 400-00084235en
Rev: 2013-05-20