



DUREFLEX[®] PT1700S

Characterization

Dureflex PT1700S is a specially formulated aromatic polyether based film.

Properties / Applications

Dureflex PT1700S is for applications requiring high moisture vapor transmission. Dureflex PT1700S maintains mechanical properties essentially equivalent to a conventional polyether TPU, yet this material allows water vapor to pass through it at a rate of 3 to 5 times greater. This material is intended for thin gauge film. Dureflex PT1700S is supplied on a polyethylene carrier. As with any product, use of Dureflex PT1700 in a given application must be tested (including but not limited to field testing) in advance by the user to determine suitability.

Typical Physical Properties*

	ASTM Test Method	Value
Specific Gravity	D-792	1.24
Durometer (Shore A)	D-2240	80
Ultimate Tensile Strength	D-882	5,300 psi
Ultimate Elongation	D-882	600%
100% Modulus (MD/CD Ave.)	D-882	800 psi
300% Modulus (MD/CD Ave.)	D-882	1,600 psi
Tear Resistance (MD/CD Ave.)	D-1004	300 pli
Min Softening Point	TMA onset	146°C / 294°F
Max Softening Point	TMA endpoint	172°C / 342°F
Approx. Yield (sq. ft./lb. @1 mil)		156
Moisture Vapor Transmission Rate 23°C/50%RH (g/m ² /24hours @ 1mil)	E-96B Upright Cup	600
Moisture Vapor Transmission Rate 38°C/98%RH (g/m ² /24hours @ 1mil)	D701-01 Mocon	5,700

* These items are provided as general information only. They are approximate values and are not part of the product specifications.

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Advantages

What makes Dureflex brand polyurethane film grades attractive**:

- functional flame retardance
- high moisture vapor transmission rates
- rubber-like elasticity
- functional static dissipation
- exceptional structural memory
- good gas / vapor barrier properties
- wide ranging surface textures / slip features
- matched customer colors
- full range of opacity

Secondary Processing Options

- foam-in-place
- heat sealing
- laminating
- match mold forming
- pressure forming
- RF welding / sealing
- solvent welding
- thermoforming
- ultrasonic welding
- vacuum forming

**Refers generally to Dureflex brand films and not solely to the product described on this data sheet.

Custom Manufacturing Capabilities 2



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	Blown Film
Widths Available	60 in.
Gauge Available	1 mil
Surface Texturing Available	Yes
Core Size Available	3 in & 6 in
Clean Room Production	No

2 Restriction may apply to certain film grades.

Colors

- natural - standard
- black and colors available at additional cost

Health and Safety Information

Appropriate literature has been assembled which provides information concerning the health and safety precautions that must be observed when handling this product. Before working with this product, you must read and become familiar with the available information on its risks, proper use, and handling. This cannot be overemphasized. Information is available in several forms, e.g., safety data sheets and product labels. For further information contact your Covestro LLC representative or the Product Safety and Regulatory Affairs Department in Pittsburgh, PA.

The manner in which you use and the purpose to which you put and utilize our products, technical assistance and information (whether verbal, written or by way of production evaluations), including any suggested formulations and recommendations, are beyond our control. Therefore, it is imperative that you test our products, technical assistance and information to determine to your own satisfaction whether our products, technical assistance and information are suitable for your intended uses and applications. This application-specific analysis must at least include testing to determine suitability from a technical as well as health, safety, and environmental standpoint. Such testing has not necessarily been done by us. Unless we otherwise agree in writing, all products are sold strictly pursuant to the terms of our standard conditions of sale which are available upon request. All information and technical assistance is given without warranty or guarantee and is subject to change without notice. It is expressly understood and agreed that you assume and hereby expressly release us from all liability, in tort, contract or otherwise, incurred in connection with the use of our products, technical assistance, and information. Any statement or recommendation not contained herein is unauthorized and shall not bind us. Nothing herein shall be construed as a recommendation to use any product in conflict with any claim of any patent relative to any material or its use. No license is implied or in fact granted under the claims of any patent.

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page 3 of 3

Document contains important information and must be read in its entirety.

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Product Datasheet