



DUREFLEX® PT1710S

Aromatic Polyether Polyurethane Film Breathable film

Product Information

Dureflex® PT1710S is a specially formulated aromatic polyether based film for applications requiring high moisture vapor transmission. Dureflex® PT1710S 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. As with any product, use of Dureflex® PT1710S 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	6500 psi
Ultimate Elongation	D-882	650%
100% Modulus (MD/CD Ave.)	D-882	800 psi
300% Modulus (MD/CD Ave.)	D-882	1700 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	510
Moisture Vapor Transmission Rate 38°C/98%RH (g/m ² /24hours @ 1mil)	D6701-01 Mocon	4400

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.

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

Custom Manufacturing Capabilities²

Range of Capabilities	
Width Available	10 - 72 in. ²
Gauge Available	1 - 8 mils
Surface Texturing Available	Yes
Interleaf Available	Yes ²
Clean Room Production	Yes
Core Size available	3 in & 6 in

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 Dureflex® PT1710S. 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., material safety data sheets and product labels. For further information contact your Bayer MaterialScience representative or the Product Safety and Regulatory Affairs Department in Pittsburgh, PA.

Note: The information contained in this bulletin is current as of June 2010, please contact Bayer MaterialScience to determine whether this publication has been revised.

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