



DUREFLEX® X2103

Aromatic Polyether Polyurethane Film Non-Halogenated/Fire Retardant

Product Information

Dureflex® X2103 is an aromatic polyether polyurethane film/sheeting product specially formulated with a non-halogenated fire retardant. As a polyether TPU, it exhibits excellent hydrolysis and fungus resistance, and therefore is recommended for applications that have continuous exposure to water and high humidity environments. This product is recommended for adhesion to fabrics as a protective and adhesive layer, or as a “stand alone” film in demanding applications that require flame retardancy. If your application will experience continuous exposure to petrochemicals such as gasoline, diesel fuel, aviation fuel, and many solvents, consider using Dureflex® brand polyester polyurethane film and sheet grades. As with any product, use of Dureflex® X2103 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	1.23
Durometer (Shore A)	D-2240	88
Ultimate Tensile Strength	D-882	5000 psi
Ultimate Elongation	D-882	500%
100% Modulus (MD/CD Ave.)	D-882	1100 psi
300% Modulus (MD/CD Ave.)	D-882	2200 psi
Min Softening Point (TMA onset)	E2347-04	149°C / 300°F
Max Softening Point (TMA endpoint)	E2347-04	168°C / 334°F
Tear Resistance (MD/CD Ave.)	D-1004	400 pli
Flame Rating	UL-94	V0 @ 120 mil V2 @ 60 mil
Approx. Yield (sq. ft./lb. @1 mil)		156.5

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	12- 75 in. ²
Gauge Available	1.5 - 50 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

Degree of slip, tack, gloss, and opacity can be modified to customers needs/specifications.

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[®] X2103. 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 July 2010, please contact Bayer MaterialScience to determine whether this publication has been revised.

Bayer MaterialScience LLC

8 Fairview Way • South Deerfield, MA 01373 • Phone: 800-644-0116 • www.bayerfilms.com

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7/10