



DUREFLEX® A4700

Optical Aliphatic Polyether Polyurethane Film

Product Information

Dureflex® A4700 is a self-priming, polyether based, low modulus aliphatic thermoplastic polyurethane film/sheet product developed as part of a series of optical grade adhesive films. Dureflex® A4700 was specifically developed for the lamination of optically transparent glass-clad polycarbonate.

Dureflex® A4700 is also used in acrylic composites CAB and other compatible thermoplastics.

Dureflex® A4700 can be supplied from 15 mils to 50 mils (.38 to 1.27 mm) with a specially developed film finish to allow for evacuation of trapped air during press or autoclave bonding. Dureflex® A4700 is supplied with a protective polyethylene interleaf to prevent film-to-film roll blocking, and should be incorporated where a “primerless” lamination is required. As with any product, use of Dureflex® A4700 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	1.07
Durometer (Shore A)	D-2240	78
Ultimate Tensile Strength	D-882	5500 psi
Ultimate Elongation	D-882	500%
100% Modulus (MD/CD Ave.)	D-882	500 psi
300% Modulus (MD/CD Ave.)	D-882	1500 psi
Tear Resistance (MD/CD Ave.)	D-1004	250 pli
Min Softening Point	TMA onset	76°C / 169°F
Max Softening Point	TMA endpoint	100°C / 212°F
Approx. Yield (sq. ft./lb. @1 mil)		180
Appearance		Optically Clear

Custom Manufacturing Capabilities²

Self-Priming	Yes	All Grades
Film Finish Available	Yes	Matte/Emboss
Interleaf	Yes	Polyethylene
Gauges Availability	Yes	15 - 50 mil
Widths Availability	Yes	20 - 60 in
Clean Room Production	Yes	All Grades

² Restriction may apply to certain film grades.

Potential Applications

- Prison containment glazing
- Retail kiosks
- Hurricane/Vandals glazing
- Zoos
- Computer screens
- Ballistic/Blast/Intrusion
- Vehicle armoring
- Residential glazing
- Government/Military
- Other

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® A4700. 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.

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

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

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