

UV Display Bonding Adhesives Provide Fast, Clear, Bubble-Free, Optically Clear Bonds

Enhance LCD and Plasma Screens, Monitors, Outdoor Kiosks, Navigation Systems, and Mobile Phones

Dymax display bonding adhesives are specifically formulated for applications where crystal-clear, invisible bonds are required. The adhesives bond glass to glass, glass to plastic, and plastic to plastic in seconds upon exposure to UV light. Dymax display bonding adhesives are designed to maximize light transmission, accurate color, brightness, and clarity of liquid crystal displays (LCDs). Reduced air entrapment creates strong, ripple-free bonds that help increase panel strength. These adhesives are commonly used to laminate LCDs, cover glass, and touch screens used for monitors, kiosk panels, and mobile phones.



The “on-demand cure” of these adhesives allows substrates to be repositioned precisely until parts are ready to be cured. Using a thin layer of Dymax adhesive controls cost and can reduce the weight of the final product. The adhesive also acts as a barrier against stress, significantly improving product reliability and warranty costs. Dymax display adhesives come in a variety of viscosities for ease of use and controlled dispensing and are available in a wide range of packaging sizes.



Optical bonding increases clarity, viewing angle, and vibration resistance

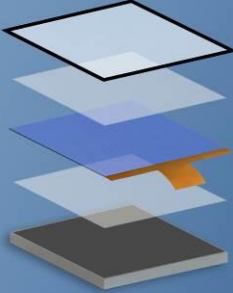
- One component, no mixing required
- Fast cure with excellent bond strength to a variety of substrates
- Easy flow characteristics for flat panel lamination
- Low shrinkage minimizes visible distortion after cure
- Excellent re-workability (9700 series)
- High optical clarity
- Flexible with low stress and low modulus
- Very low yellowing for increased light transmission, enhanced brightness, optical clarity, and better contrast ratios transmission
- Enhanced thermal cycling

Product	Description	Viscosity (cP)	Refractive Index	Yellowness b* initial, 5 mil thick	Durometer Hardness	Volumetric Shrinkage	Transmittance at 570 nm
9701	Low viscosity; low shrinkage; excellent re-workability; non-yellowing; good thermal shock resistance; bonds to various substrates	200	1.50	0.08	00-70	4.9%	99%
9702	Low shrinkage; excellent re-workability; non-yellowing; good thermal shock resistance; bonds to various substrates	950	1.49	0.12	00-70	4.2%	100%
9703	Gel viscosity; low shrinkage; excellent re-workability; non-yellowing; good thermal shock resistance; bonds to various substrates	30,000	1.48	0.47*	00-80	4.2%	97%


* 20 mil thick film

<i>Glass to Glass</i>	<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">Glass</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">Adhesive</div> <div style="border: 1px solid black; padding: 5px;">Glass</div>
<i>Glass to PMMA</i>	<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">Glass</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">Adhesive</div> <div style="border: 1px solid black; padding: 5px;">PMMA</div>
<i>Polycarbonate to Glass</i>	<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">Polycarbonate</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">Adhesive</div> <div style="border: 1px solid black; padding: 5px;">Glass</div>
<i>PET to Glass</i>	<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">PET</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">Adhesive</div> <div style="border: 1px solid black; padding: 5px;">Glass</div>
<i>PET to ITO Glass</i>	<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">PET</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">Adhesive</div> <div style="border: 1px solid black; padding: 5px;">ITO Glass</div>
<i>Glass to Stainless Steel</i>	<div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">Glass</div> <div style="border: 1px solid black; padding: 5px; margin-bottom: 5px;">Adhesive</div> <div style="border: 1px solid black; padding: 5px;">Stainless Steel</div>


Typical Display Construction




- Cover Window (Glass or Plastic)
- Adhesive
- ITO Coated Touch Panel
- Adhesive
- LCD Module



Tablets



Informational Kiosks



Navigational Systems

Common Applications of Dymax LCD Laminating and Bonding Adhesives



Interactive Touch Kiosks

Adhesive bonds remain pliable without affecting performance.



Airport, Bus Station, and Train Station Information Monitors

Various unlike substrates can be laminated with a single adhesive. Not affected by temperature variations.



LCD Portable Games

Economical-to-use adhesive solutions keep product costs down.



Smart Connected Devices

Adhesives maximize light transmission, accurate color, brightness, and clarity of the LCD.



Outdoor Kiosks

Resists yellowing and harsh environments.



Dymax adhesives can be used in lamination applications to prevent screen glare.

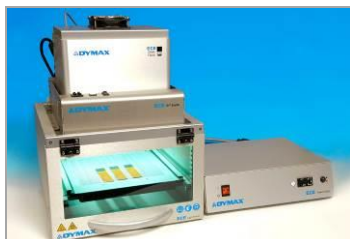
Dymax Dispensing & Light-Curing Systems for Display Bonding

A range of dispensing and curing options are available from Dymax including handheld and mountable dispensing valves, conveyORIZED curing systems, flood lamp systems, and spot-curing lamps.



Conveyors

Dymax UVC conveyor systems come in a range of curing widths to accommodate LCD screens in various sizes. Customized conveyors are also available. Contact Dymax for more information and free consultation.



Flood Lamps

Dymax flood lamp systems are available for incorporating into existing assembly lines or for mounting over Dymax UVC conveyor systems. Contact Dymax for more information and free consultation.



Spot Lamps

Dymax spot-curing systems are used to cure beads sealing the gaps between the LCD to bezel.



Dispensing Systems

Dymax has developed high-quality, field-proven dispense systems to fit many types of adhesive and fluid dispensing applications. These systems include various automated and manual dispensing valves, spray valves and guns, controllers, material reservoirs, and related components for seamless integration into assembly processes. The systems provide accurate, consistent dispense for a range of low- to high-viscosity fluids. Dispensing systems with adjustable suck-back control and dispensing valves that offer contaminate-free dispensing are available.



© 2006-2015 Dymax Corporation. All rights reserved. All trademarks in this bulletin, except where noted, are the property of, or used under license by Dymax Corporation, U.S.A.

The data contained in this bulletin is of a general nature and is based on laboratory test conditions. Dymax Europe GmbH does not warrant the data contained in this bulletin. Any warranty applicable to products, its application and use is strictly limited to that contained in Dymax Europe GmbH's General Terms and Conditions of Sale published on our homepage http://www.dymax.com/de/pdf/dymax_europe_general_terms_and_conditions_of_sale.pdf. Dymax Europe GmbH does not assume any responsibility for test or performance results obtained by users. It is the user's responsibility to determine the suitability for the product application and purposes and the suitability for use in the user's intended manufacturing apparatus and methods. The user should adopt such precautions and use guidelines as may be reasonably advisable or necessary for the protection of property and persons. Nothing in this bulletin shall act as a representation that the product use or application will not infringe a patent owned by someone other than Dymax Corporation or act as a grant of license under any Dymax Corporation Patent. Dymax Europe GmbH recommends that each user adequately test its proposed use and application of the products before actual repetitive use, using the data contained in this bulletin as a general guide.

LIT041EU 4/20/2015

Dymax Corporation
860.482.1010 | info@dymax.com | www.dymax.com

Dymax Europe GmbH
+49 (0) 611.962.7900 | info_de@dymax.com | www.dymax.de

Dymax Engineering Adhesives Ireland Ltd.
+353.1.231.4696 | info_ie@dymax.com | www.dymax.ie

Dymax Oligomers & Coatings
860.626.7006 | info_oc@dymax.com | www.dymax-oc.com

Dymax UV Adhesives & Equipment (Shanghai) Co. Ltd.
+86.21.37285759 | dymaxasia@dymax.com | www.dymax.com.cn

Dymax UV Adhesives & Equipment (Shenzhen) Co. Ltd.
+86.755.83485759 | dymaxasia@dymax.com | www.dymax.com.cn

Dymax Asia (H.K.) Limited
+852.2460.7038 | dymaxasia@dymax.com | www.dymax.com.cn

Dymax Asia Pacific Pte. Ltd.
+65.6752.2887 | info_ap@dymax.com | www.dymax-ap.com

Dymax Korea LLC
+82.2.784.3434 | info_kr@dymax.com | www.dymax.com/kr