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## Product Data

# EPIBOND<sup>®</sup> 7275

## EPOXY SURFACE MOUNT ADHESIVES

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**DESCRIPTION:** Epibond<sup>®</sup> 7275 epoxy surface mount adhesives are formulated to meet the performance and quality requirements of printed circuit board manufacturers.

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**ADVANTAGES:**

- Consistent, high dot profile
- Good green strength
- Fast curing
- Six-month work life at 68°F (20°C) room temperature
- Nine-month work life at 32°F (0°C)
- Resists slumping and stringing with high (>6.0) thixotropic index

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**EXTENDED WORK LIVES** Epibond<sup>®</sup> 7275 epoxy surface mount adhesives are formulated with extended work lives of six months at room temperature. In screen printing, this long life accommodates continuous processing over an eight-hour shift. For dot dispensing, the adhesives retain their properties at room temperature to facilitate storage and handling of syringes.

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**NATIONWIDE DISTRIBUTION** Epibond<sup>®</sup> 7275 epoxy surface mount adhesives are available through a nationwide distribution network to ensure fast response to customer needs and timely, on-schedule product delivery.

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**TYPICAL  
UNCURED  
PROPERTIES:**

<u>Property</u>	<u>Test Method</u>	<u>Test Values</u>		
		<u>7275</u>	<u>7275-1</u>	<u>7275 Yellow</u>
Composition		Epoxy	Epoxy	Epoxy
Specific Gravity	ASTM D-792	1.28	1.29	1.30
Viscosity, (RVT spindle #7), cps @ 1 rpm	ASTM D-1824	3,200,000	2,500,000	3,200,000
cps @ 10 rpm		420,000	320,000	400,000
Color	Visual	Red	Red	Yellow
Thixotropic Index	ASTM D-1824	>6.0	>6.0	>6.0
Dot Profile, width/height		<2.0	<2.0	<2.0
Particle Size ( $\mu$ )		<25	<25	<25

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**TYPICAL CURED  
PROPERTIES:**

<u>Property</u>	<u>Test Method</u>	<u>Test Values</u>		
		<u>7275</u>	<u>7275-1</u>	<u>7275 Yellow</u>
Glass Transition Temp., by TMA, °C (°F)	ASTM D-696	66 (151)	65 (149)	65 (149)
Thermal Coefficient of Expansion, by TMA, alpha 1	ASTM D-696	48x10 <sup>-6</sup>	57x10 <sup>-6</sup>	50x10 <sup>-6</sup>
alpha 2		170x10 <sup>-6</sup>	176x10 <sup>-6</sup>	177x10 <sup>-6</sup>
Thermal Conductivity (Cal/Sec•cm•°C)		6.5x10 <sup>-4</sup>	6.4x10 <sup>-4</sup>	6.7x10 <sup>-4</sup>

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**INDUSTRY  
STANDARDS:**

	<u>7275</u>	<u>7275-1</u>	<u>7275 Yellow</u>
Bellcore - TR-NWT-000078	Compliant	Compliant	Compliant

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**TYPICAL  
ELECTRICAL  
PROPERTIES:**

	<u>Test Method</u>	<u>7275</u>	<u>7275-1</u>	<u>7275 Yellow</u>
Dielectric Strength, volts/mil	ASTM D-149	420	420	420
Dielectric Constant, at 1 MHz	ASTM D-150	3.87	3.87	3.87
Dissipation Factors, at 1 MHz	ASTM D-150	0.025	0.025	0.025
Volume Resistivity, $\Omega$ cm	ASTM D-257	2.1x10 <sup>15</sup>	2.1x10 <sup>15</sup>	2.1x10 <sup>15</sup>
Surface Resistivity, $\Omega$ cm <sup>2</sup>	ASTM D-257	1.1x10 <sup>15</sup>	1.1x10 <sup>15</sup>	1.1x10 <sup>15</sup>

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**CURING  
OPTIONS**

	<u>7275</u>	<u>7275-1</u>	<u>7275 Yellow</u>
Time at 80°C (176°F), min.	12	12	12
Time at 120°C (248°F), min.	2.5	2.5	2.5
Time at 150°C (302°F), min.	1.5	1.5	1.5

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NOTE: Actual oven cure is dependent upon board design.

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## **GUIDELINES FOR HANDLING EPIBOND® 7275 SURFACE MOUNT ADHESIVES**

**REWORKING:** Once cured, Epibond® 7275 adhesives can be removed from a printed circuit board by heating the board to approximately 80°C (176°F to 185°F). When the temperature of the surface mount component reaches 80°C (176°F), the adhesive will be soft enough to permit component removal using a “lift and twist” method.

After removing the component, re-apply heat to any remaining adhesive until it is soft. Residual material can then be scraped off the board surface.

**CLEANING:** Uncured adhesives can be easily removed from printed circuit boards, screens or stencils using isopropyl alcohol, NMP and a wide variety of other solvents and cleaning fluids. We are constantly working with manufacturers of solvents and cleaning fluids to test and identify new materials that meet the needs of our customers. For an updated list of suggested cleaning materials, please contact the Huntsman Product Information Hotline at 800-331-6810.

**STORAGE/  
HANDLING:** Epibond® 7275 adhesives should be stored in their original containers at temperatures between 0°C (32°F) and 23°C (73°F). Prior to use, the containers should be allowed to stabilize at room temperature for several hours before the packages are opened. Remove any moisture condensation on containers with a dry cloth or paper towel before opening. After containers are opened, materials should be dispensed for immediate use. Then, the containers should be re-sealed as soon as possible to minimize moisture absorption and returned to refrigerated storage. Note: Epibond® adhesive is hygroscopic. Dispose of material left on the screen printer for more than eight hours. To prevent contamination of unused material, do not return any product to its original container or package. Keep syringes tightly capped.

## EQUIPMENT COMPATIBILITY/PACKAGING SELECTION GUIDE

Equipment	Syringe Style	Package Size
Amistar	7275/EFD 7275/PAN	5cc, 10cc or 30cc 20cc
Asymtek	7275/EFD	10cc or 30cc
Camelot	7275/EFD	5cc, 10cc or 30cc
Creative Automation (ADM 221-1851, ADM 2200, Champion 910, 2000, 3000, 7100, 7150)	7275/EFD	5cc, 10cc or 30cc
DEK	7275/PYLES	150cc
Dynapert (MPS 318, MPS 525)	7275/EFD	30cc
Dynapert (MPS 118, MPS 525)	7275/EFD	10cc
EFD (1000XL, 1500XL, 1500DV, 2000XL-VR, etc.)	7275/EFD	5cc, 10cc or 30cc
Fuji (GL-II & GL-V)*	7275/FUJI	30cc
Fuji (GI-I with O-ring adapter)*	7275/SEM	35cc
Henry Mann (SMT-4807-1/2, SMT 8800)	7275/EFD	5cc
Intelligent Dispensers (AD-7000Z)	7275/IWA	30cc
ISMEC (Moduline & Miniplacer)	7275/EFD	10cc
Iwashita (Autoshooter7, ASC 7000)	7275/IWA	30cc
KME	7275/IWA	30cc
Mamiya (Superhand ECM 8300)	7275/EFD	5cc
MPM	7275/SEM	300cc
MPM	7275/PYLES	150cc
Panasert (M-1, M-2, MK, MQ)	7275/PAN	20cc
Panasert (MV-150, HD, HDP2, HPP2C, HDPG1)	7275/IWA	30cc
Phillips (CSM-46, CSM-60, CSM-260)	7275/EFD	10cc
Quad (Star, Star-T, 4000)	7275/EFD	5cc
Sanyo (TD-30, 40, 60, 63, 65)	7275/IWA	30cc
Siemens (MD-90, Sp-120, HS-180)	7275/EFD	5cc
Siemens (Siplace G)	7275/GLT	10cc
Thomson Linear Motion	7275/EFD	10cc
TDK (RX4260 with retrofit)	7275/EFD	10cc or 30cc
TDK (with retrofit)	7275/IWA	30cc
TDK (non-disposable syringes models)	7275/SEM	300cc
Universal Instruments (4713, 4716, 4768) (kits available for use with Iwashita & Panasert style syringes)	7275/EFD	5cc, 10cc or 30cc
US Robotics (LD-10, LD-80)	7275/EFD	10cc
Zevatech (including Placemat 360)	7275/EFD	5cc
Zeta (1400)	7275/EFD	5cc, 10cc or 30cc
Bulk cartridges for all screen printers and units with non-disposable syringes	7275/PYLES	150cc

\*Disposable plungers for Fuji 7275 syringe dispensers available.

### **SAFETY PRECAUTIONS:**

- Read material safety data sheet (MSDS) prior to using product.
- May cause eye irritation.
- Prolonged or repeated exposure may cause skin irritation or allergic skin reactions.
- Harmful if inhaled or swallowed.
- For industrial use only.
- Avoid contact with eyes, skin or clothing.
- Wear eye protection and impervious gloves when handling.
- Avoid breathing vapor or dust.
- Keep container closed when not in use.

### **FIRST AID!**

Eyes and skin: Flush eyes with cold running water for a minimum of 15 minutes. Contact a physician immediately.

Skin: Wash thoroughly with soap and warm water. Dab/air dry. Remove and wash contaminated clothing before reuse.

Inhalation: Remove subject to fresh air.

Swallowing: Dilute by drinking water. Never give anything to drink to an unconscious person.

### **KEEP OUT OF REACH OF CHILDREN**

### **FOR PROFESSIONAL AND INDUSTRIAL USE ONLY**

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