Product Datasheet

Preliminary – production specification not yet finalized and additional data is still being generated.

LiquidWeld™ 1565A/B

High Temperature, Long Work Life Epoxy Adhesive

LiquidWeld™1565A/B is a high performance adhesive that provides strong bonds to many surfaces including wood, composite, ceramics, glass, metals, and rigid plastics. The adhesive features a long work life and requires heat to fully cure. Once cured, the adhesive offers excellent heat, chemical, and environmental resistance. The cured LiquidWeld™1565A/B is suitable for applications with service temperatures up to 350ºF (177ºC). In addition, the mixed adhesive produces is a thixotropic semi-paste with excellent run and sag resistance to at least 1/8" thicknesses.

LiquidWeld™1565A/B is available in a natural dark amber-brown color. It can also be supplied in pigmented versions by request. Other variations, including adjusted viscosities and flow behavior, reduced work-life and curing times are also available by request. Please contact us for assistance if such a variation might be helpful for your application.

BENEFITS

- Non-sagging/Non-running and excellent gap filling up to at least 1/8" thickness
- Long work life of 12 hours
- Excellent heat, chemical, and environmental resistance

HANDLING PROPERTIES	VALUE	TEST METHOD
LiquidWeld™1565A		
Color	Translucent to light yellow	Visual
Density	1.22 g/cm³	ASTM E-201
Viscosity, Part A, at 25ºC	35,000 cps	ASTM D-2393
LiquidWeld™1565B		
Color	Dark Brown/Amber	Visual
Density	1.00 g/cm³	ASTM E-201
Viscosity, Part B, at 25ºC	1000 - 3000 cps	ASTM D-2393
Mixed Properties		
Mix Ratio	100A:40B by weight (2A:1B by volume)	Calculated
Density	1.13 – 1.15 g/cm³	ASTM D-792
Mixed Viscosity	26,000 cps	ASTM D-2393
Pot life (100 grams) at 25ºC	12 hours	ASTM D-2471
Shelf-life	1 year at room temperature (15ºC - 35ºC) from date of shipment	
Suggested cure: 3 hours at 200ºF (93ºC) **plus** 1 hour at 350ºF (177ºC)*.		

*Note: for best results ramp up to curing temperatures at 2-5ºF per minute. A controlled ramp may help to reduce warpage or stress in large parts and can help to ensure an even curing rate. However small parts

may be able to directly go into a 200ºF (93ºC) oven and be ramped more rapidly to 350ºF (177ºC). Also, please be aware that many alternate cure schedules are possible. Please contact us for assistance in evaluating alternate cure schedules.

PHYSICAL PROPERTIES	VALUE	TEST METHOD
Shore Hardness	85D	
Lap Shear Strength (Al-Al bonds)		ASTM D-1002
Tested at 25ºC	> 1000 psi	
Tested at 82ºC	> 950 psi	
Glass Transition Temperature (Tg)	>130ºC	ASTM D-4065

NOTE: Typical Properties determined using EpoPro® 115A/C cured 24 hours at 25ºC - unless otherwise stated. Values are based on laboratory or average production results – not for specification purposes.

SUGGESTED PROCESSING GUIDELINES

LiquidWeld™1565A/B can be applied by a roller, squeegee, knife, or spatula. It is also suitable for meter-mix dispensing and can be supplied in dual syringes cartridges for use with static mixing nozzles.

For manual mixing, weigh Part A and Part B in the recommended ratio as accurately as possible into a clean mixing container. Always use weighing equipment having accuracy of 1% or better based on the smallest quantity being weighed out. Blend by using a spatula or stirring stick for 1-2 minutes using a kneading motion. Scrape the bottom and sides of the mixing container carefully and frequently to produce a uniform mixture. Always apply the adhesive to clean, dry surfaces.

For best bond strength, roughen the surface to be bonded with wire brush, sandblasting, etc. After roughening, clean and dry surface and remove any loose material prior to bonding. Optimal bond strengths are typically achieved with an adhesive bondline thickness of 2 – 5 mils, but larger gaps and thicker bondlines are possible with this adhesive without a major loss of mechanical strength. If bond-line thickness control is important, this adhesive can be supplied with spacer beads such as 1.5, 3, or 5 mils to ensure the designed minimum bond-line thickness is achieved. Please contact us for more information if spacer beads would be of interest for your applications.

STORAGE GUIDELINES

Store this material in a clean, cool and dry environment in its tightly closed original container. Products may settle during storage and should be thoroughly re-mixed prior to use. Avoid extended exposure to high humidity and tightly re-seal after use. If the recommended storage conditions are observed the products will have a minimum shelf-life of 12 months from the date of shipment.

HANDLING PRECAUTIONS

Mandatory and recommended industrial hygiene procedures should be followed whenever these products are being handled and processed. For additional information please consult the corresponding material safety data sheets.

FIRST AID

In case of contact:

Skin – Immediately wash skin thoroughly with mild soap and water. Remove contaminated clothing and wash before reuse. Destroy contaminated shoes and other articles made of leather.

Eyes – Immediately flush eyes with plenty of water for 15 minutes and get prompt medical attention.

Inhalation - Remove person to fresh air. Administer oxygen or artificial respiration if necessary. Call a physician.

Ingestion - Do not induce vomiting. Contact physician immediately. Never give anything by mouth to an unconscious person.

DISCLAIMER

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