TECHNICAL DATA SHEET

OXY-BOND™ 105 Clear

Revision date: 8/12/2024

N109 W13300 ELLSWORTH DRIVE GERMANTOWN, WI 53022
262-253-5900 FAX 262-253-5919

DESCRIPTION:

ResinLab® OXY-BOND™ 105 Clear is a clear, two-part epoxy formulation recommended for lower temperature or wet industrial bonding applications where fast curing is required. This medium viscosity system mixes easily at room temperature, contains no solvents, and is suitable for high performance structural bonding applications. It sets in five minutes and reaches full strength in about 60 minutes.

OXY-BOND™ 105 Clear develops strong, tough bonds to a wide variety of substrates including metal, plastic, wood, and construction materials. It is an excellent electrical insulator when fully cured. It provides superior resistance to vapors and gases, water, galvanic action, petroleum fuels, and other organic and inorganic compounds.

This product performs well in many applications, including high speed bonding and repairs at low temperatures; assembly line and production work such as staking, fillet bonds, and general industrial repairs; component assembly, appliances, electronics, and fiber optics.

TYPICAL PROPERTIES:

All properties given are at 25 °C unless otherwise noted.

Property:	*Value:*	*Test Method or Source:*
Color	Clear	Visual
Mix Ratio	Part A to Part B	Calculated
Mix Ratio by weight	1.01 to 1	
Mix Ratio by volume	1 to 1	
Cure Schedule	24 hrs @ 25 °C	
Viscosity - Part A	16,000 cP	TA HR20 Rheometer 25mm parallel plate @ 1/s DCV6100723
Viscosity - Part B	19,500 cP	
Viscosity - Mixed	17,500 cP	
Specific Gravity - Part A	1.16	Calculated
Specific Gravity - Part B	1.14	
Specific Gravity - Mixed	1.15	
Pot Life - Cup and Stick	4 – 5 minutes (small mass)	Extrapolated from Henkel LDS
Work Life	5 minutes	453560822627/Visual, cup and stick
Hardness	80 Shore D	455300006287/ASTM D2240 Extrapolated from Henkel LDS
Glass Transition Temperature/Tg	33 °C	453560822409 by DSC
Impact, Izod	2.1 ft-lb/in. of notch	Extrapolated from Henkel LDS
AC Dielectric Strength	18 kV/mm	Extrapolated from Henkel LDS
Operating Temperature Range	-60 to 125 °C**	

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Property:	*Value:*	*Test Method or Source:*
Relative Thermal Index (RTI)	90 °C	UL746B, Table 7.1 Generic Value Based on Composition

* Asterisk denotes values considered typical to associated resin systems or extrapolated from other test results.
** Operating Temperature Range is based on average design requirements and is not intended as a guarantee of suitability for all applications operating at that temperature.
*** This TDS contains values that have been updated. The values reported in this technical data sheet are typical values of the product, and are highly dependent on test conditions and methodology. We actively seek the most precise and accurate ways to measure and interpret performance of our products, and to update estimated values with measured values. The formula has not been revised or changed in any way. Although the values on paper have changed, you can expect the same performance of the product.

Additional Performance Data – Hardness, 455300006287/ASTM D2240,Extrapolated from Henkel LDS:	
Cure Schedule	**Hardness**
10 min @ 25 °C	28 Shore D
30 min @ 25 °C	68 Shore D
60 min @ 25 °C	74 Shore D

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INSTRUCTIONS:

1. Bring to room temperature prior to use.
2. Cartridge format: Mixer should be attached keeping the cartridge vertical and any air pocket purged this way. After the mixer contains material, the mixer tip can be dropped to dispense pre-bleed amount. Attach a new static mixer with each cartridge, then pre-bleed the first 3 inches of dispensed material or until a uniform color is obtained. Maintain adequate velocity during dispensing to ensure complete mixing.
3. Bulk format: stir until homogeneous weigh and mix parts A and B accurately and thoroughly, scraping sides of container often. Do not pour from mixing container, transfer to a new container as residual unmixed material may cause a tacky spot on the surface of the casting. Maintain adequate velocity during dispensing to ensure complete mixing.
4. Clean up uncured resin with suitable organic solvent such as MEK or acetone.
5. Allow to cure undisturbed until product is fully gelled or tack-free to the touch.

SHELF LIFE AND STORAGE:

12 months at 25 °C.
Specialty packaging may be less.

Many epoxy resin systems are prone to crystallization as epoxy resin is a super-cooled fluid. This condition may give the product a gritty or grainy appearance (or hazy in clear products). Products in this state will not usually cure to normal and expected properties. In extreme cases it may appear solid and cured. Fluctuating temperatures (within 5 to 50 °C) aggravate this phenomenon. Heating the individual component to 50 to 60 °C while stirring can usually restore products to original state. Storage at 25 +/- 10 °C is optimum for most products.