

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

DESCRIPTION:

ResinLab® Armstrong™ A-271 is an amber-colored clear two-part epoxy bonding adhesive. It exhibits good adhesion to glass due to its wetting ability and can also be used to bond most materials, including metals, plastics, wood, and ceramics. It has good moisture and chemical resistance and it suitable for use at intermediate “in service” temperatures up to 225 °F or 107 °C. Armstrong™ A-271 has low shrinkage and exotherm. It can be used as a potting compound where glass and strain sensitive elements are being potted.

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Product manufactured under license from Henkel.

TYPICAL PROPERTIES:

All properties given are at 25 °C unless otherwise noted. Extrapolated cured properties were generated via cure of 30 minutes at 93 °C.

Property:	Value:	Test Method or Source:
Color	Amber, Clear	Visual
Mix Ratio By weight By volume	Part A to Part B 7 to 3 1.97 to 1	Calculated
Cure Schedule	14 days @ 25 °C (optimum) 24 hours @ 25 °C 30 minutes @ 93 °C 5 minutes @ 148 °C	Extrapolated from Henkel LDS
Viscosity – Part A Viscosity – Part B Viscosity - Mixed	9,000 cps @1/s 6,000 cps @1/s 9,000 cps @1/s	Rheometer parallel plate 25mm 455300006291
Specific Gravity – Part A Specific Gravity – Part B Specific Gravity - Mixed	1.17 0.97 1.10 (calculated)	Measured WPG cup
Pot Life, defined as the time it takes for initial mixed viscosity to double	53 minutes	Rheometer parallel plate 25mm@1/s 455300006291
Work Life	90 minutes/ 100 g mass 60 minutes/ 1 lb mass	Extrapolated from Henkel LDS
Hardness	80 Shore D	455300006287/ASTM D2240
Tensile Properties: Strength Elongation	8,700 psi 10%	Extrapolated from Henkel LDS
Bond Strength	2,500 psi	Extrapolated from Henkel LDS
Cleavage	1,500 psi	Extrapolated from Henkel LDS
Lap Shear Strength Al to Al @ -51 °C Al to Al @ 25 °C Al to Al @ 82 °C	2,000 psi 2,800 psi 2,500 psi	Extrapolated from Henkel LDS
Coefficient of Thermal Expansion	49 ppm/ °C below Tg	Extrapolated from Henkel LDS
Operating Temperature Range	-40 to 150 °C**	

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Relative Thermal Index (RTI)	90 °C **	UL746B, Table 7.1 Generic Value Based on Composition
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* 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.

INSTRUCTIONS:

1. Bring both components to room temperature prior to mixing.
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: 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. Allow to cure undisturbed until product is fully gelled or tack-free to the touch.
5. Clean up uncured resin with suitable organic solvent such as MEK, acetone or other organic solvent.

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.