

TECHNICAL DATA SHEET

Armstrong™ A-2 with Activator E

Revision date: 2/24/2025

N109 W13300 ELLSWORTH DRIVE GERMANTOWN, WI 53022

262-253-5900 FAX 262-253-5919

DESCRIPTION:

ResinLab® Armstrong™ A-2 with Activator E is a two part filled paste resin. It has a low CTE that is ideal for bonding porcelain, glass, and ceramics. Non metallic oxide fillers provide excellent electrical insulation properties.

Armstrong™ A-2 will have excellent wetting properties and will maintain strong bonds to rigid materials such as cast iron, steel, aluminum, copper, bronze, magnesium, phenolics, wood, titanium, polycarbonate, polyester, nylon, acrylics, acetates and ABS.

Armstrong™ A-2 can be used with 4 different activators/curing agents. *A-2 with Activator E* offers a long working life compared to Activator A, of 1 – 1.5 hours and high tensile shear values. Mixed with *Activator E*, the paste consistency of *A-2* reduces to a medium viscosity pourable casting material for potting applications.

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TYPICAL PROPERTIES:

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

Property:	Value:	Test Method or Source:
Color	Off White	Visual
Mix Ratio	Part A to Part B	Calculated
Mix Ratio by weight	16.67 to 1	
Mix Ratio by volume	7.18 to 1	
Cure Schedule	1 hr @ 93 °C for optimum cure	
Viscosity - Part A	870,000 cP	TA HR20 Rheometer 25mm parallel plate @ 1/s DCV6100723
Viscosity - Part B	6 cP	
Viscosity - Mixed	27,000 cP	
Specific Gravity - Part A	1.93	Calculated
Specific Gravity - Part B	0.83	
Specific Gravity - Mixed	1.79	
Work Life	1.5 hours	Extrapolated from Henkel LDS
Hardness	85 Shore D	455300006287/ASTM D2240
Glass Transition Temperature/Tg	75 °C	453560822409 by DSC

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<i>Property:</i>	<i>Value:</i>	<i>Test Method or Source:</i>
Tensile Properties:		Extrapolated from Henkel LDS
Strength	6,570 psi	
Elongation	2.8 %	
Compressive Properties:		Extrapolated from Henkel LDS
Yield Strength	16,500 psi	
Coefficient of Thermal Expansion by TMA:		Extrapolated from Henkel LDS
below Tg	43 ppm/°C	
above Tg	159 ppm/°C	
Cleavage	1,860 psi	ASTM D1602 / Extrapolated from Henkel LDS
Bond Strength	4,520 psi	ASTM D897 / Extrapolated from Henkel LDS
Operating Temperature Range	-40 to 150 °C**	
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.

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Additional Performance Data – Lap Shear Adhesion, Extrapolated from Henkel LDS:

Substrate Type	Strength	Test Temperature	Cure Schedule	Bond Line Thickness
Al to Al	2,500 psi	25 °C	Extrapolated from Henkel LDS	0.005 "
Al to Al	2,960 psi	180 °C	Extrapolated from Henkel LDS	0.005 "
Al to Al	2,850 psi	-60 °C	Extrapolated from Henkel LDS	0.005 "
Al to Al	3,050 psi	25 °C	7 days @ 25 °C in 28% ammonia	0.005 "
Al to Al	2,930 psi	25 °C	7 days @ 25 °C in distilled water	0.005 "
Al to Al	3,380 psi	25 °C	7 days @ 25 °C in 10% salt water	0.005 "
Al to Al	3,030 psi	25 °C	7 days @ 25 °C in 100% acetone	0.005 "
Al to Al	2,350 psi	25 °C	7 days @ 25 °C in glacial acetic acid	0.005 "
Al to Al	3,600 psi	25 °C	7 days @ 25 °C in 100% toluene	0.005 "
Al to Al	3,050 psi	25 °C	7 days @ 25 °C in 100% ethylene dichloride	0.005 "
Al to Al	2,000 psi	25 °C	7 days @ 25 °C in ethyl acetate	0.005 "
Al to Al	2,520 psi	25 °C	7 days @ 25 °C in 100% hexane	0.005 "
Al to Al	2,400 psi	25 °C	30 days @ 25 °C in 100% RH	0.005 "

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INSTRUCTIONS:

1. Bring to room temperature prior to use.
2. 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.
3. Clean up uncured resin with suitable organic solvent such as MEK or acetone.
4. Allow to cure undisturbed until product is fully gelled or tack-free to the touch.

SHELF LIFE AND STORAGE:

12 months at 25 °C.
9 months DOP at 25 °C in C-kit
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.