

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

DESCRIPTION:

ResinLab® Armstrong™ A-2 with Activator A is a two-part filled paste resin. A-2 resin has a low coefficient of thermal expansion 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 when cured 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 A offers room temperature cure with a work life of 30 minutes and high tensile shear values. Mixed with Activator A, the paste consistency of A-2 reduces to a medium viscosity 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
By weight	25 to 1	
By volume	12 to 1	
Cure Schedule	2 hours @ 74 °C for optimum cure 10 minutes @ 93 °C for fast cure	Extrapolated from Henkel LDS
Viscosity – Part A	870,000 cps	Rheometer parallel plate 25mm
Viscosity – Part B	30 cps	455300006291
Viscosity - Mixed	110,000 cps	
Specific Gravity – Part A	1.94	Calculated by WPG cup method
Specific Gravity – Part B	0.94	
Specific Gravity - Mixed	1.86	
Pot Life	30 minutes	453560822627, cup and stick
Work Life	30 minutes	Extrapolated from Henkel LDS
Hardness	85 Shore D	455300006287/ASTM D2240
Tensile Properties:		Extrapolated from Henkel LDS
Strength	3,000 psi	ASTM D638
Elongation	1.5%	ASTM D638
Cleavage Strength	1,560 psi	ASTM D1602
Compressive Properties:		Extrapolated from Henkel LDS
Ultimate Compressive Strength	17,900 psi	ASTM D695
Lap Shear Strength:		Extrapolated from Henkel LDS
At room temp	2,900 psi	
At 82 °C	3,500 psi	
At -51 °C	2,500 psi	
After 7 days in:		

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Ammonia, 28%	1,530 psi	
Distilled Water	1,650 psi	
Salt water, 10%	3,070 psi	
Acetone (100%)	2,530 psi	
Glacial Acetic Acid	980 psi	
Toluene (100%)	2,850 psi	
Ethylene dichloride (100%)	3,010 psi	
Ethyl Acetate	2,530 psi	
Hexane (100%)	2,320 psi	
After 30 days in:		
100% RH	3,370 psi	
Bond Strength	2,270 psi	ASTM D897/Extrapolated from Henkel LDS
Coefficient of Thermal Expansion by TMA	70 ppm/ °C below Tg	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.

INSTRUCTIONS:

1. Bring both components to room temperature prior to mixing.
2. 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.
3. Allow to cure undisturbed until product is fully gelled or tack-free to the touch.
4. 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 DOP
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.

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