TECHNICAL DATA SHEET

Armstrong™ A-2 with Activator H-20

Revision date: 8/27/2024

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

DESCRIPTION:

ResinLab® Armstrong™ A-2 with Activator H-20 is a two-part filled paste resin. *A-2* resin 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 H-20 offers room temperature cure with long working life 1 – 1.5 hours and high tensile shear values. This material can withstand severe thermal shock and thermal cycling without effect. Mixed with *H-20*, the paste consistency of *A-2* reduces to a high viscosity pourable casting material for potting applications. Times and temperatures for optimal cure are 30 minutes at 75 °C and 10 minutes at 75 °C for fast cure.

TYPICAL PROPERTIES:

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

Property:	*Value:*	*Test Method or Source:*
Color	Off White	Visual
Mix Ratio **Mix Ratio by weight** **Mix Ratio by volume**	Part A to Part B 10 to 1 5.25 to 1	Calculated
Cure Schedule	30 min @ 75 °C 10 min @ 95 °C	
Viscosity - Part A **Viscosity - Part B** **Viscosity - Mixed**	870,000 cP 550 cP 140,000 cP	TA HR20 Rheometer 25mm parallel plate @ 1/s DCV6100723
Specific Gravity - Part A **Specific Gravity - Part B** **Specific Gravity - Mixed**	1.93 0.99 1.73	Calculated
Pot Life defined as the time it takes for initial mixed viscosity to double	18 minutes	TA HR20 Rheometer parallel plate 25mm @ 1/s DCV6100723
Work Life	45 – 90 minutes (mass dependent)	Extrapolated from Henkel LDS

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Property:	*Value:*	*Test Method or Source:*
Tensile Properties:		Extrapolated from Henkel LDS
Strength	3,800 psi	
Elongation	4 %	
Coefficient of Thermal Expansion by TMA:		Extrapolated from Henkel LDS
below Tg	43 ppm/°C	
Bond Strength	3,500 psi	Extrapolated from Henkel LDS, ASTM D897
Cleavage	1,600 psi	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.

Additional Performance Data – Lap Shear Adhesion, 4535601224468/ASTM D1002:				
Substrate Type	**Strength**	**Test Temperature**	**Cure Schedule**	**Bond Line Thickness**
Al to Al	3,800 psi	25 °C	Extrapolated from Henkel LDS	0.005 "
Al to Al	900 psi	80 °C	Extrapolated from Henkel LDS	0.005 "
Al to Al	2,700 psi	-51 °C	Extrapolated from Henkel LDS	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.
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.