

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.

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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	10 to 1	
By volume	5.25 to 1	
Cure Schedule	30 minutes @ 75 °C for optimum cure 10 minutes @ 95 °C for fast cure	
Viscosity – Part A	870,000 cps	Rheometer parallel plate 25mm
Viscosity – Part B	550 cps	455300006291
Viscosity - Mixed	140,000 cps	
Specific Gravity – Part A	1.88	Calculated
Specific Gravity – Part B	0.99	
Specific Gravity - Mixed	1.73	
Pot Life, defined as the time it takes for initial mixed viscosity to double	18 minutes	Rheometer parallel plate 25mm@1/s 455300006291
Work Life	45-90 minutes (mass dependent)	Extrapolated from Henkel LDS
Tensile Properties:		Extrapolated from Henkel LDS
Strength	3,800 psi	
Elongation	4%	
Lap Shear Strength		Extrapolated from Henkel LDS
At room temp	3,800 psi	
At 80 °C	900 psi	
At -51 °C	2,700 psi	
Cleavage	1,600 psi	Extrapolated from Henkel LDS
Bond Strength	3,500 psi	Extrapolated from Henkel LDS ASTM D897

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Coefficient of Thermal Expansion by TMA	43 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.

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 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.