Technical Data Sheet
Armstrong™ C-7 with Activator W

11/15/2023

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

DESCRIPTION:

ResinLab® Armstrong™ C-7 with Activator W is a two-part epoxy adhesive that can be used at varying ratios to obtain desired properties. Activator W will impart flexibility when used with Resin C-7. The degree of hardness and flexibility will differ depending on the mix ratio selected. This system can cure at room temperature or at elevated cure schedule and has a long pot life.

Please note that, in the description and table below, Resin C-7 is defined as Part A and Activator W is defined as Part B.

Armstrong™ C-7 with Activator W was tested at a 1A:1B ratio and will not support or sustain mildew/mold/fungi or biological growth.

Armstrong™ C-7 with Activator W will have excellent adhesion to rubber, thermosetting plastics, most thermoplastics, concrete, ceramics, glass, all metals and many other substrates. It can be used in bonding or potting applications such as: potting connectors and terminations, bonding CAB illuminated signs, bonding luggage parts including components made of magnesium and polypropylene, concrete coating, bonding traffic markers, attaching parts to stadium seating and aisles, a binder for solid fuel granules, and bonding rocket nozzles for machining.

Armstrong™ C-7 with Activator W will have good chemical and solvent resistance, with maximum resistance obtained using the lower ratio of the Activator will achieve the maximum resistance.

The ratios below are the most commonly used. The 2A:3B ratio will impart the most flexibility to the cured material.

TYPICAL PROPERTIES:

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

Property:	*Value: 1A:1B*	*Value: 2A:3B*	*Test Method or Source:*
Color	Colorless to yellow, transparent	Colorless to yellow, transparent	Visual
Mix Ratio **By weight** **By volume**	Part A to Part B 1 to 1 1 to 1	Part A to Part B 2 to 3 2 to 3	Calculated
Cure Schedule	7 days at RT 2 hours @ 74 °C	7 days at RT 2 hours @ 74 °C	Extrapolated from Henkel LDS
Viscosity – Part A **Viscosity – Part B** **Viscosity - Mixed**	18,000 cps @1/s 42,000 cps @1/s 30,000 cps @1/s (estimated)	18,000 cps @1/s 42,000 cps @1/s 35,000 cps @1/s (estimated)	Rheometer parallel plate 25mm 455300006291
Specific Gravity – Part A **Specific Gravity – Part B** **Specific Gravity - Mixed**	1.17 0.96 1.07	1.17 0.96 1.07	Calculated

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Pot Life, defined as the time it takes for initial mixed viscosity to double	100 minutes	85 minutes	Rheometer parallel plate 25mm@1/s 455300006291
Hardness	75 Shore D	70 Shore D	455300006287/ASTM D2240
Bond Strength/Butt Joint			Extrapolated from Henkel LDS
7 days at RT	1050 psi	2730 psi	
2 hours @ 74 °C	2670 psi	2900 p si	
Lap Shear Strength			Extrapolated from Henkel LDS
0.005" bond line Al to Al			
7 days at RT:	3,480 psi tested at RT	2,910 psi tested at RT	
	510 psi tested at 82 °C	580 psi tested at 82 °C	
	1,890 tested at -51 °C	2,120 tested at -51 °C	
2 hours @ 74 °C:	3,850 psi tested at RT	4,310 psi tested at RT	
	1,930 psi tested at 82 °C	570 psi tested at 82 °C	
	1,050 tested at -51 °C	3,390 tested at -51 °C	
Compressive Properties:			Extrapolated from Henkel LDS
Compressive Strength:			
7 days at RT	16,000 psi	18,000 psi	
2 hours at 74 °C	18,000 psi	18,000 psi	
Coefficient of Thermal Expansion by TMA			Extrapolated from Henkel LDS
7 days at RT	48 ppm/°C below Tg	No data	
2 hours @ 74 °C	48 ppm/°C below Tg	No data	
Fungal resistance	No growth detected	No data, not tested	MIL-STD-810G, Method 508.6
Operating Temperature Range	-40 to 150 °C**	-40 to 150 °C**	

* 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.

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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.