

TECHNICAL DATA SHEET

Armstrong™ C-7 with Activator E

Revision date: 7/30/2024

N109 W13300 ELLSWORTH DRIVE GERMANTOWN, WI 53022

262-253-5900 FAX 262-253-5919

DESCRIPTION:

ResinLab® Armstrong™ C-7 with Activator E is a low viscosity epoxy adhesive system designed to cure with heat. Once cured it produces an adhesive with a very rigid bond line. This product has proven very useful in applications requiring rigidity such as bonding strain gauge transducers and other strain measuring elements. This product has exceptionally good chemical and solvent resistance.

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

Armstrong™ C-7 with Activator E can be modified with specific fillers and reinforcing agents to enhance its dimensional stability and provide excellent part-to-part duplication ability critical for many types of casting applications.

Activator E is a slow reacting hardener. When the product is mixed at the recommended weight ratio of 100 parts C-7 resin to 6 parts *Activator E*, it has a very long work life. Full cure can be reached after 1 hour at 93 °C. *Activator E* is not recommended for room temperature curing applications.

Armstrong™ is a trademark of Henkel and its affiliates in the US and elsewhere, and used under license. Product manufactured under license from Henkel.

TYPICAL PROPERTIES:

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

Property:	Value:	Test Method or Source:
Color	Colorless to yellow Transparent	Visual
Mix Ratio	Part A to Part B	Calculated
Mix Ratio by weight	16.67 to 1	
Mix Ratio by volume	11.93 to 1	
Cure Schedule	1 hr @ 93 °C	Extrapolated from Henkel LDS
Viscosity - Part A	18,000 cP	Extrapolated from Henkel LDS
Viscosity - Part B	3 cP	
Viscosity - Mixed	6,600 cP	
Specific Gravity - Part A	1.16	Calculated
Specific Gravity - Part B	0.83	
Specific Gravity - Mixed	1.13	
Pot Life defined as the time it takes for initial mixed viscosity to double	2 – 3 hours (100 g sample)	Extrapolated from Henkel LDS
Hardness	85 Shore D	455300006287/ASTM D2240
Glass Transition Temperature/Tg	33 °C	453560822409 by DSC

TECHNICAL DATA SHEET

Armstrong™ C-7 with
Activator E

Revision date: 7/30/2024

N109 W13300 ELLSWORTH DRIVE GERMANTOWN, WI 53022

262-253-5900 FAX 262-253-5919

Property:	Value:	Test Method or Source:
Lap Shear Strength		4535601224468/ASTM D1002
0.005" Bond Line, Al to Al, FPL Etched	2,100 psi	Cure Schedule: 3hr @100 °C
Operating Temperature Range	-55 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 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.