

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

DESCRIPTION:

ResinLab® Armstrong™ A-701 is a one part heat cured epoxy adhesive designed for applications requiring an elevated in service temperature.

Armstrong™ A-701 requires application of heat above 120 °C to cure. A cure schedule of 2 hours at 204 °C will provide optimal performance. Curing for 10 minutes at 260 °C will provide fast cure. Time to heat substrate must be taken into account. Cooler temperatures will also extend work time and increase cure times.

Armstrong™ A-701 is suitable for bonding most metals, ceramics, plastics, and those substrates not affected by cure temperatures. It will have good chemical resistance. It also has good electrical resistance due to the inert oxide fillers in the formula.

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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	Light gray	Visual
Cure Schedule	3 hrs @ 150 °C 2 hrs @ 204 °C 10 min @ 260 °C	
Viscosity	415,000 cP	TA HR20 Rheometer 25mm parallel plate @ 1/s DCV6100723
Specific Gravity	1.70	Calculated
Hardness	85 Shore D	455300006287/ASTM D2240
Glass Transition Temperature/Tg	141 °C	453560822409 by DSC
Tensile Properties:		4535601224470/ASTM D638 Cure Schedule: 1 hr @100 °C + 3 hr @150 °C
Strength	1,100 psi	
Elongation	0.2 – 0.4 %	
Modulus	690,000 psi	
Tensile Bond Strength/Butt Joint	3,500 psi	Extrapolated from Henkel LDS
Coefficient of Thermal Expansion by TMA:		455300005340/ASTM E831 TMA, 5 °C/min
below Tg	48 ppm/°C	
above Tg	204 ppm/°C	
Cleavage @ 204 °C	2,500 psi	Extrapolated from Henkel LDS
Operating Temperature Range	-60 to 210 °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.

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*** 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, Extrapolated from Henkel LDS:

Substrate Type	Strength	Test Temperature	Cure Schedule	Bond Line Thickness
Al to Al	3,000 psi	-60 °C		0.0050 "
Al to Al	3,500 psi	25 °C		0.0050 "
Al to Al	3,600 psi	82 °C		0.0050 "
Al to Al	3,500 psi	135 °C		0.0050 "
Al to Al	2,600 psi	160 °C		0.0050 "
Al to Al	1,300 psi	177 °C		0.0050 "
Al to Al	600 psi	204 °C		0.0050 "

INSTRUCTIONS:

1. Bring to room temperature prior to use.
2. Apply to substrate with flow applicator, place in oven, allow to cure undisturbed until product is fully gelled or tack-free to the touch.
3. Clean up uncured resin with suitable organic solvent such as MEK or acetone.

SHELF LIFE AND STORAGE:

Product is stable for up to 5 days transit when shipped under ambient conditions.
9 months DOP at 5 °C.
Specialty packaging may be less.