



# Armstrong A-12T Epoxy Adhesive

August 2015

## PRODUCT DESCRIPTION

**Armstrong A-12T adhesive** is an epoxy based formulation exhibiting a wide range of properties and applications. It is a 2-part system (Part A and Part B), having a convenient and non-critical mixing ratio. High strength, permanent bonds are obtained by curing this adhesive either at room temperature or slightly elevated temperatures.

The two components of the A-12T system are different colors, providing a visual indication of proper and complete mixing. Part A is dark brown, Part B is light gray.

The most frequently used ratio is equal parts by weight. This is changed to vary the flexibility of the cured adhesive, with a ratio of 2 parts A to 3 parts B most common for flexible materials, or extreme vibration applications. In cryogenic applications the ratio may be as high as 1 part A to 4 part B. A rigid glue line results from a mixture of 3 parts A to 2 parts B. This also provides the highest strength in the 130° - 170°F range and is recommended where maximum chemical and solvent resistance is required or where high compressive forces exist.

The A-12T system provides the same basic properties as the A-12 system but is a thixotropic paste, useful where a non-flowing adhesive is required.

- Aluminum structural bonding on trailers
- Polyester glass laminates to aluminum in missile & rocket cases
- Hermetic sealing of switch contacts
- Sealing solid fuel fuses
- Bonding and sealing PVC to copper for liquid nitrogen lines
- Phenolic wear plates to cast iron ways
- Ceramic and stone to concrete (architecture)
- Sealing food conveyors in processing plants

## Suggested Cure Schedules

Mix Ratio	Elevated Temperature		Room Temperature	
	Optimum	Fast	Optimum	Fast
3:02	30 min. @ 200°F	5 min. @ 300°F	1 Week	Overnight
1:01	1 hour @ 200°F	5 min. @ 300°F	1 Week	Overnight
2:03	2 hours @ 165°F	20 min. @ 300°F	2 Weeks	Overnight

## Storage

Store below 25°C out of sunlight and in original unopened containers. Refer to packaging specific quote for shelf life information.

## Data Ranges

The data contained herein may be reported as a typical value and/or range. Values are based on actual test data and are verified on a periodic basis.

## Note

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## Typical Physical Properties of Cured System (Part A / Part B)

	Part A	Part B
Viscosity @25°F (poise)	Paste	Paste
Specific Gravity	1.37	1.21
Color	Brown	Gray
Working Life	90 Min	
Mixed Viscosity (1:1)	Paste	
Tensile Shear AI/AI	1:1 mix ratio cured 2 hr @ 165°F -- 4130 P.S.I.	
Tensile Shear AI/AI	2:3 mix ratio cured 2 hr @ 165°F -- 4380 P.S.I.	

## TYPICAL APPLICATIONS

The A-12T has an extremely broad range of applications. Low shrinkage, combined with excellent wetting characteristics, result in high strength bonding of almost all rigid to semi-flexible materials -- including ceramics, glass, plastic laminates, hard rubber, all metals, wood, thermosetting plastics, many thermoplastics, etc.

Case histories indicate there is no deterioration of the bond strength of the adhesive from aging. A few applications, representative of its versatility, are as follows:



## Armstrong A-12 Black Epoxy Resin Adhesive

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