



Armstrong C-7 Epoxy Resin Adhesive with Activator "W"

August 2015

PRODUCT DESCRIPTION

Activator "W" is a curing agent for epoxy resins and has a wide range of applications. Combined with Armstrong C-7 resin, this system makes an excellent adhesive. Activator "W" features built in flexibility. By varying the ratio of the Activator, hardness or flexibility may be altered from a hard, strong material to a soft, resilient system.

APPLICATIONS

C-7 with Activator "W" has excellent adhesion to such materials as rubber, thermosetting plastics, most thermoplastics, concrete, ceramics, glass, all metals and many others. A few applications utilizing these systems are potting connectors and terminations, bonding CAB illuminated signs, bonding various parts of luggage, including magnesium and polypropylene, concrete coating, bonding traffic markers, attaching aisle and seat markers in stadiums, binder for solid fuel granules and bonding rocket nozzles for machining.

PROPORTIONS

The Activator "W" cures well at room or elevated temperatures. Unlike some room temperature curing systems, the pot life of this system is relatively long. Generally, Activator "W" is mixed at the ratio of 1:1 by weight, with the C-7 resin. Ratios of 3 Parts "W" and 2 parts resin impart flexibility and 2 parts "W" and 3 parts resin or 1 part "W" and 2 parts resin are used for rigid, hard systems. Maximum chemical and solvent resistance is obtained by using the lower ratio of Activator W".

Constants

	C-7	W
Viscosity, poise @ 77°F	140	375
Color	Transparent	Amber
Specific Gravity	1.14-1.18	.96

Properties

	Ratio	C-7/W
Mixed Viscosity, poise @ 77°F	1:1	210
	2:3	230
	70:30	---
Density, lbs/cubic inch	1:1	.039
	2:3	.038
	70:30	---
Pot Life @ 77°F (100 grams)		90 mins

Physical Properties

	1:01	1:01	2:03	2:03	70:30:00
Cure	7 days	2 hrs	7 days	2 hrs	2 hrs
	@ RT	@ 165°F	@ RT	@ 165°F	@ 165°F
Bond Strength, psi	1050	2670	2730	2900	----
Ult. Compressive Strength, psi x 1000	16.2	18.4	18.3	18.5	----
T.C.E. (in./in./°C x 10 ⁻⁵)	4.8	4.8	----	----	2.4
Elongation %	6.3	6.3	11.1	16.4	----
Tensile Strength, psi	7840	5590	4190	4420	----
Cleavage, psi	1650	1160	----	1420	----
Shear Strength, psi**					
RT	3480	3850	2910	4310	----
180°F	510	1930	580	570	----
-60°F	1890	1050	2120	3390	----
After 7 days in					
Ammonia, 28%	2080	2050	2270	2720	----
Distilled Water	2060	2200	3160	3270	----
Salt Water 10%	2130	1650	3060	2840	----
Acetone	1780	1570	2270	2460	----
Glacial Acetic Acid	1430	1130	1630	1830	----
Toluene	2040	1620	2100	2310	----
Ethylenedichloride	2090	1420	2300	2420	----
Ethyl Acetate	1930	1670	1770	2380	----
Hexane	2700	2550	2750	2590	----
30 days 100% RH	2320	2150	2630	2330	----
Barcol Hardness	----	----	----	----	65-70
Linear Shrinkage in/cm					
Cast @ 75°F	----	----	----	----	0.0006
Cast @ 150°F	----	----	----	----	0.012
Compressive Yield, psi	----	----	----	11200*	----
Tensile Ultimate, psi	----	----	----	8000*	----
Flexural Modulus	----	----	----	2.5 x 10 ⁵	----
Flexural Ultimate, psi	----	----	----	13200*	----

**Tests run on Aluminum to Aluminum

* Mixing ratio was 3 to 2

Storage

Store below 80°F 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.

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**Armstrong A-12 Black Epoxy Resin Adhesive****August 2015**

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