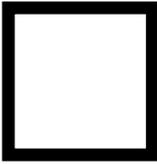




Armstrong Products Division



Resin Technology Group, LLC ☐ 28 Norfolk Ave, S. Easton, MA 02375 ☐ Tel. (508)230-8070 Fax (508)230-2318

PRODUCT DATA

ARMSTRONG PRODUCT PRODUCT DATA

ARMSTRONG A-1, A-3, A-4, A-5 WITH ACTIVATOR “A”, “E” and “C”

Surface Preparation:

The surface to be bonded should be clean and dry. For most applications mechanical and/or solvent degreasing is satisfactory. For some critical applications special chemical surface preparations should be used.

MIX RATIOS:

Following are the mix ratios for Armstrong A-1, A-3 and A-4 with the various activators:

Activator “A” 100 parts A-1, A-3 or A-4 require 4 parts “A” by weight.

Activator “C”/ Activator “E” 100 parts A-1, A-3 or A-4 require 6 parts “E” by weight.

Following are the mix ratios for A-5 with the various activators:

Activator “A” 100 parts A-5 require 7 parts “A” by weight.

Activator “E” 100 parts A-5 require 10 parts “E” by weight.

Mixing: Combine the two components in a clean, discardable container in correct proportions and mix thoroughly. Avoid the introduction of excess air, which reduces the effectiveness of the adhesive. In selecting the amount of adhesive to mix at one time the limited working life should be taken into account.

Minimum Working Life (100 grams at 77°F)

A-1, A-3, A-4 or A-5 with Activator A: 40 Minutes

A-1, A-3, A-4 or A-5 with Activator E or Activator C:

2.5 Hours

Assembly: Spread a thin layer (3-5 mils) of adhesive evenly on the surfaces to be bonded and press together gently. Contact pressure or light clamping (< 10 psi) will keep parts in place during cure.

Cure: When using Activator “E” these systems must be cured at elevated temperature cure. Any of the cure schedules given below are recommended.

All of the adhesive with Activators “A” will develop handling strength overnight at room temperature with full strength reached within 3-4 days. Elevated temperature cures may be used to shorten the cure time with any of the cure schedules given below recommended.

2 hrs @ 165°F

1 hour @ 200°F

30 minutes @ 300°F

Note: Temperatures given are glue line temperatures.

R.T.G., LLC MAKES NO EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS OR OTHERWISE with respect to its products. In addition, while the information contained herein is believed to be reliable, no warranty is expressed or implied regarding the accuracy of the data or the results to be obtained from the use thereof. All recommendations or suggestions for use are made without guarantee-in as much as conditions of use are beyond our control. The properties given are typical values and are not intended for use in preparing specifications. Users should make their own test to determine the suitability of this product for their own purposes.

Physical Properties:

	A-4/A	A-4/A	A-4/E
Cure	7 Days @ RT	2 hrs@ 165°F	1 hr @ 200°F
Bond Strength, psi	1120 psi	1710 psi	4130 psi
Ult Compressive Strgth,psi x 1000	10.5	11.8	18.9
T.C.E. (in./in/°C x 10 ⁻⁵)	3.9	---	3.9
Elongation %	2.6	2.0	1.9
Tensile Strength, psi	2620	4460	4070
Cleavage, psi	---	1370	2070
Shear Strength, psi**			
RT	1370	2050	2320
180°F	1230	3860	2960
-60°F	780	1580	1880
After 7 days in			
Ammonia, 28%	1650	1870	2750
Distilled Water	1430	1650	2400
Salt Water 10%	1580	1670	2800
Acetone	1550	1590	2230
Glacial Acetic Acid	1690	1810	2180
Toluene	1550	1710	2550
Ethylenedichloride	1330	1460	2550
Ethyl Acetate	1230	1830	1730
Hexane	1290	2010	2460
30 days 100% RH	1560	1820	2750
Steel to Steel	---	1800	2300

	A-5/A	A-5/A	A-5/E
Cure	7 Days @ RT	2 hrs @ 165°F	1hr @ 200°F
Bond Strength, psi	1330 psi	1790 psi	3030 psi
Ult Compressive Strgth,psi x 1000	9.3	11.1	12.6
T.C.E. (in./in/°C x 10 ⁻⁵)	5.1	---	5.2
Elongation %	2.4	1.7	1.7
Tensile Strength, psi	1810	1600	2780
Cleavage, psi	---	890	1360
Shear Strength, psi**			
RT	1650	1810	2470
180°F	430	570	2260
-60°F	1260	2160	2240
After 7 days in			
Ammonia, 28%	1350	1130	2830
Distilled Water	1630	1150	3000
Salt Water 10%	1680	1870	2730
Acetone	1330	1480	2980
Glacial Acetic Acid	1480	1230	2180
Toluene	1700	1700	3000
Ethylenedichloride	1300	1600	2680
Ethyl Acetate	1350	1770	2100
Hexane	1370	1850	2500
30 days 100% RH	1050	1730	1830
Steel to Steel	---	2320	---

R.T.G., LLC MAKES NO EXPRESS OR IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS OR OTHERWISE with respect to its products. In addition, while the information contained herein is believed to be reliable, no warranty is expressed or implied regarding the accuracy of the data or the results to be obtained from the use thereof. All recommendations or suggestions for use are made without guarantee-in as much as conditions of use are beyond our control. The properties given are typical values and are not intended for use in preparing specifications. Users should make their own test to determine the suitability of this product for their own purposes.