



**THE RUSCOE
COMPANY**
Adhesives &
Sealants

Rusco-Weld E 116

Part A & Part B–Toughened Two-Part Epoxy

DESCRIPTION:

Rusco-Weld E 116 Part A and Part B is a 1:1 by volume two-part toughened epoxy adhesive that will bond to various surfaces which can be handled in less than 6 hours and develop full cure at room temperature in 72 hours. It can be jelled in 4 minutes at 180°F and post cured at room temperature or at elevated temperature.

FEATURES:

- Color coded for visual inspection of mix
- Can be supplied in pre-weigh cartridges for accurate mix
- Serviceable to 180°F
- Bonds have excellent impact resistance and good peel strength

UES:

Rusco-Weld E 116 Part A and Part B will bond to:

- Metal
- Plastics/Rubber
- FRP and Composite Material

PHYSICAL PROPERTIES:

	Part A	Part B
Base	Epoxy	Amine
Color	Black	White
Mixed Color	Grey/Black	
Weight per Gallon	9.4 lbs.	8.04 lbs
Mix Ratio	1 by volume.	1 by volume
	100 parts by weight	85 parts by weight
Viscosity Brkfd #7 @ 2 RPM	1-2 M cps	350,000-1 Mcps
Cure Time	Handling strength in 6 hrs @ R.T. Full Cure in 72 hrs @ R.T.	
Pot Life	25 Minutes @ 73 °F (23 °C)	
Shelf Life	1 Year	1 Year
Total Solids	100%	100%
Coverage	1600 SF/Gal/Mil Thickness	

TEST DATA:

CURE SCHEDULE	24 hrs @ R.T.	72 hrs @ R.T.	2 hrs @ 158°F	2 hrs @180°F
Lap Shear ASTM D 1002 -60°F	1500 psi	2000 psi	3500 psi	4400 psi
R.T.	2200 psi	2600 psi	3200 psi	3500 psi
180°F	1200 psi	1400 psi	1500 psi	1675 psi
T-Peel ASTM D 1876	2.0 pli	12 pli	20 pli	18pli

continued

Application:

Surface Preparation

1. All surfaces should be free of grease, wax and dirt. Wash with cleaning solvent or strong alkali cleaning detergent solution such as Spic and Span. Carbon steel, stainless steel, galvanized steel, wood, glass FRP and most porous surfaces may be bonded directly to the clean surface with no special pretreatment.
2. Bonding to aluminum requires a special etch pretreatment consisting of an immersion in achromic acid solution for 10 minutes @ 160°F. Followed by a thorough rinse in clean water. Force dry clean part for 30 minutes at 160°F to remove all water film or give a sufficient dry time at room temperature.

Mixing the Adhesives

1. Hand Mixing

Parts A & V must be thoroughly mixed according to the prescribed mix ratio. The parts are colored for visual inspection of the final mix. A final grey/black color is needed.

2. Tube Pumping

A Mix Pac DP 200-70 pneumatic dispenser can be used with a regulator pressure of 55 psi at a 1:1 ratio. A 1:1 ratio manual gun may also be used. A 10-inch static mix tube with a minimum of 24 elements is also recommended.

Application to the Part

The mixed adhesive can be applied to one or both surfaces. Only enough pressure is required to keep the parts in intimate contact. Too much pressure can cause excessive squeeze out and an adhesive starved bond line. The use of shims also can prevent too much squeeze out.

Curing

Rusco-Weld E 116 Part 1 and Part 2 will fully cure in 72 hours @ R.T. However, most parts can be handled within 4-6 hours at R.T. Handling strength can be accelerated by applying heat such as 4 minutes @ 180°F.

CLEAN UP:

Mixers and equipment should be immediately cleaned with mineral spirits, Ketone, or lacquer thinner solvent.

Once the epoxy has cured, removal is extremely difficult such as soaking in a chlorinated solvent for 24 hours and then brushing and scraping it.

STORAGE:

The shelf life of Rusco-Weld E 116 Part 1 and Part 2 is 1 year in unopened cans or containers. Keep in cool, dry area. Keep containers tightly sealed.

Legal: For your information

All statements, technical information and recommendations contained herein are based on tests believed to be reliable, but the accuracy or completeness is not guaranteed, and the following is made in lieu of all warranties expressed or implied.

Seller's and manufacturer's only obligation shall be to replace such quantity of the product proved to be defective. Neither seller nor manufacturer shall be liable for any injury, loss or damage, direct or consequential, arising out of the use of, or the inability to use the product. Before production, user shall determine the suitability of the product for their intended use and assumes all risk and liability in connection with and production.

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