

# Technical Data Sheet



**W V C O**

Willamette Valley Company

www.wilvaco.com

800.333.9826

Partnering through service,  
innovation, and integrity

## WESTERN DIVISION

660 McKinley Street

Eugene OR 97402

Tel. 800.333.9826

## EASTERN DIVISION

6662 Marbut Road

Lithonia GA 30058

Tel. 888.878.9826

## MIDWEST DIVISION

1549 Hwy 2

Two Harbors MN 55616

Tel. 218 834 3922

## SOUTHERN DIVISION

100 Dixie Mae Drive

Pineville LA 71361

Tel. 800 444 9826

# E-400 Epoxy - Thick

## Two-component epoxy used to fill wood defects

### DESCRIPTION

E-400 is a two-component polyamine hardened epoxy used for the repair of defects in wood. Used in the wood products industry; it can be applied by hand or meter on an assembly line operation. This product has been formulated with an extended open time so that the epoxy can be worked before setting up: 15-20 minutes, depending on temperature and quantity. Once cured E-400 Epoxy can be easily sanded, cut, drilled and stained. E-400 Epoxy is also free from the irritating odors of polyester and mercaptan.

### WHERE TO USE

- Dimensional Lumber
- Laminated Beams
- Fir and Cedar Siding
- Unrouted and Routed Defects in Plywood
- Molding, Furniture
- Boats

### FEATURES AND BENEFITS

- Easy Mixing
- Cured E-400 can be Sanded, Drilled, Cut and Stained
- Can be Applied in Hot or Cold Temperatures
- Outstanding Adhesion
- Great Moisture Resistance
- Crack and Shrink Resistant

### PACKAGING

- 1-gallon pails
- 5-gallon pails
- 20-gallon fiber drums

### SHELF LIFE

12 months when properly stored.

### STORAGE

Store this product in a clean, dry, shaded or covered environment above 45°F (25°C). DO NOT FREEZE.

## TECHNICAL INFORMATION

### TYPICAL PROPERTIES

Solids		100%
Density – lbs./gallon (Kg/L)	Part A	8 (0.96)
	Part B	8 (0.96)
Consistency		Creamy Paste
Pot Life – at 77°F (25° C) in 100 mls or ½ cup (varies with quantity and temperature)		15 minutes
Color (other colors available upon request)		Fir, Cedar knot, Green wood
Hardness – Shore “D” (on fully cured material)		50

### APPLICATION

The E-400 Epoxy can be applied by hand or by the metering system engineered by Willamette Valley Company.

**By Hand:** The most common method of mixing uses a pallet, a piece of plywood, 18" X 18", covered with a piece of polyethylene slightly larger than the panel. The correct proportions are one to one by volume. The user can be assured of correct proportions by using 2 identical cups to measure the volume to be mixed. Place equal amounts of Part "A" and Part "B" on the pallet. To mix, we recommend a 2.5" to 3," flexible putty knife. Mix by stirring and pressing the mixture. It is important that some downward pressure be exerted as it causes a more complete mix. To ensure complete mixing, scrape the epoxy off the pallet and gather into one pile in the center of the pallet, then continue mixing with side to side motions and downward pressure.

DO NOT USE additional hardener with the mix for the purpose of speeding up the cure time. Extra hardener has the opposite effect. It just slows down the cure time and softens the patch. Best results are achieved by mixing one to one by volume.

**By Meter:** Please contact your Willamette Valley Company Representative for information on using a metering system.

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## CURE TIME

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Remember that E-400 is exothermic when curing, so the larger the mass the faster it will cure. Thus a large amount of epoxy in one pile on the pallet will cure in a short time (generally 20-30 minutes) while epoxy spread to a thin film on a panel will take an hour to cure. The person applying the epoxy should not mix more than can be used in about 20 minutes. In room or air temperature above 80°F the epoxy will cure in about 10 minutes. Cure time in small splits is approximately 8 hours, but an overnight cure is recommended before cutting, sanding, drilling or staining. On hot wood, the cure time is significantly reduced.

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## ADDITIONAL FEATURES AND BENEFITS

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The E-400 Epoxy can be used to repair numerous types of wood products such as:

- ✓ Upgrading dimensional lumber and plywood
- ✓ Filling Defects in Laminated Beams
- ✓ Correcting imperfections in fir and cedar siding
- ✓ Repairing unrouted plywood defects up to 1.5"
- ✓ Repairing routed plywood defects up to 2.25"
- ✓ Fixing Defects in Molding and Furniture
- ✓ Repairing Damage to or Use in Construction of Wooden Boats

Part "A" and Part "B" of E-400 Epoxy have similar viscosities and therefore accommodate easy mixing. In addition E-400 has been formulated with specific thixotropic agents which allow it to be easily mixed and applied at hot or cold temperatures.

E-400 Epoxy was the first epoxy on the US market to pass the Vinyl Discoloration Test, a product requirement set forth the APA – the Engineered Wood Association.

Under rigorous tests conducted at mills and in the laboratory, E-400 Epoxy performs as well as a matching wood repair. The formula ingredients of this quality product assure outstanding adhesion and resistance to cracking and shrinking.

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## NOTES

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As it is true with most epoxies, prolonged exposure to direct sunlight will cause the cured epoxy to yellow and degrade over time. Avoid applications of E-400 Epoxy in areas where direct exposure to sunlight is expected.

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## HEALTH AND SAFETY

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Before handling, you should become familiar with the Material Safety Data Sheet (MSDS) regarding the risks and safe use of this product. To obtain an MSDS please call 800-333-9826 or send an email to: [msds@wilvaco.com](mailto:msds@wilvaco.com).

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## CLEAN-UP

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Use soap and water before the material solidifies.

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## CONTACT INFORMATION

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Please see the side bar on the front page for the Division nearest to your location.

### WILLAMETTE VALLEY COMPANY

[www.wilvaco.com](http://www.wilvaco.com)  
[info@wilvaco.com](mailto:info@wilvaco.com)

### OTHER DIVISIONS

#### PERFORMANCE COATINGS

1075 Arrowsmith Street  
PO Box 2280  
Eugene, OR 97402  
Tel 541.484.9621  
[www.POLYQUIK.com](http://www.POLYQUIK.com)  
[www.wvcorailroad.com](http://www.wvcorailroad.com)

#### PRECISION TECHNOLOGIES DIVISION

675 McKinley Street  
Eugene, OR 97402  
Tel 541.484.2368  
[www.pre-tec.com](http://www.pre-tec.com)

### SUBSIDIARIES

#### CANADIAN WILLAMETTE

19081- 27<sup>th</sup> Avenue  
Surrey BC V3S 5T1  
Tel. 800.663.4298

#### ECLECTIC PRODUCTS INC.

Corporate Office  
1075 Arrowsmith Street  
Eugene, OR 97402  
Tel 541.284.4667  
[www.eclecticproducts.com](http://www.eclecticproducts.com)

#### IDAHO MILL & GRAIN

445 North 430 West Hwy  
Po Box 188  
Malad City, Idaho 83252  
Tel 208.766.2206

#### TAPEL WILLAMETTE LTD. S.A.

Av. Estero La Posada 3625 Parque  
Industrial Coronel Coronel, Chile  
Tel 011.56.41.2.928.100  
[www.tapel.cl](http://www.tapel.cl)



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