

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-5400 Epoxy

Two-component epoxy used to fill wood defects

DESCRIPTION

E-5400 is a two-component epoxy resin, 100% solids and zero VOC, used for the repair of defects in wood such as: upgrading plywood; filling defects in laminated beams; repairing fir and cedar siding; repairing defects in molding, furniture and boats. E-5400 has been used in the restoration of wooden bridges. It contains unique thixotropic agents that facilitate application at hot or cold temperatures. In addition, Part "A" and Part "B" were designed to have the same viscosity for ease of mixing at a one-to-one ratio by volume. The formula's ingredients of this quality product assure outstanding adhesion and resistance to cracking and shrinking after each application.

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-5400 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. DO NOT FREEZE.

TECHNICAL INFORMATION

TYPICAL PROPERTIES

Solids		100%
Density – lbs. / gallon (kg / lt)	Part A	8 (0.96)
	Part B	8 (0.96)
Viscosity – centipoise	Part A	50,000
	Part B	45,000
Consistency		Creamy Paste
Pot Life – at 77°F (25°C) in 100 mls or ½ cup (varies with quantity and temperature)		15-20 minutes
Color		Available in many colors
Hardness – Shore "D" (on fully cured material)		50

CURE TIME

Remember that E-5400 is exothermic when curing, so the larger the mass the faster it will cure. Thus a large amount of epoxy in one mound 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.

APPLICATION

The E-5400 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 mound 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.

ADDITIONAL FEATURES AND BENEFITS

E-5400 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.

The American Plywood Association has approved E-5400 for the repair of unrouted plywood defects up to 1.5 inches. In routed plywood defects the repair can be up to 2.25 inches.

The E-5400 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-5400 Epoxy have similar viscosities and therefore accommodate easy mixing. In addition E-5400 has been formulated with specific thixotropic agents which allow it to be easily mixed and applied at hot or cold temperatures.

Under rigorous tests conducted at mills and in the laboratory, E-5400 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.

NOTES

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-5400 Epoxy in areas where direct exposure to sunlight is expected.

HEALTH AND SAFETY

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.

CLEAN-UP

Use soap and water before the material solidifies.

CONTACT INFORMATION

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

WILLAMETTE VALLEY COMPANY

www.wilvaco.com
info@wilvaco.com

OTHER DIVISIONS

PERFORMANCE COATINGS

1075 Arrowsmith Street
PO Box 2280
Eugene, OR 97402
Tel 541.484.9621
www.POLYQUIK.com
www.wvcorailroad.com

PRECISION TECHNOLOGIES DIVISION

675 McKinley Street
Eugene, OR 97402
Tel 541.484.2368
www.pre-tec.com

SUBSIDIARIES

CANADIAN WILLAMETTE

19081- 27th 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

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



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