

# Technical Data Sheet

## EPIKURE™ Curing Agent 8535-W-50

### Product Description

EPIKURE™ Curing Agent 8535-W-50 is a modified polyamidoamine adduct supplied at 50 percent solids in water, which when combined with liquid epoxy resins, provides completely solvent-free, two-package epoxy systems.

### Application Areas/Suggested Uses

- Sealers, primers and block fills for various masonry substrates
- Sealer coats for subgrade and other moisture problem masonry substrates
- Sealer coat on plywood forms for concrete
- Lane marking paint for concrete or asphalt substrates in plant and parking lots

### Benefits

- Offers combination of hardness, flexibility and solvent resistance
- 100 percent water base systems
- Water cleanup
- No flash rusting
- Overnight recoating with epoxy enamel
- Acceptance of the universal machine tinting system
- Excellent adhesion to various substrates:
- Concrete masonry
- Untreated and treated cold-rolled steel
- Aluminum
- Aged alkyd and epoxy enamel films
- Absence of nap raising on wood surfaces
- Excellent sealer for concrete and masonry
- Bridges voids and is free from mud-cracking and block fills
- No bleeding when applied to asphalt substrates

### Sales Specifications

| Property          | Value     | Unit    | Test Method |
|-------------------|-----------|---------|-------------|
| Amine Value       | 373 - 453 | mg/g    | ASTMD2896   |
| Color             | 12        | Gardner | ASTMD1544   |
| Solids            | 49 - 51   | % m/m   | ASTMD1259   |
| Viscosity at 25°C | Z4-Z6     |         | ASTMD1545   |

### Typical Properties

| Property                  | Value | Unit    | Test Method |
|---------------------------|-------|---------|-------------|
| Density Solution          | 8.77  | lbs/gal |             |
| Density Solids            | 9.19  | lbs/gal | Calculated  |
| Equivalent Weight Approx. | 102   |         |             |
| Solvent Water             | 96    | %       |             |

## General Information

The epoxy resin portion used with EPIKURE Curing Agent 8535-W-50 is typically a liquid epoxy resin (WPE 190) such as EPON™ Resin 828 in combination with a reactive diluent such as HELOXY™ Modifier 8. Coatings based on this epoxy resin combination and EPIKURE Curing Agent 8535-W-50 can be formulated to produce an easily handled initial viscosity of 85 to 90 Krebs Units. The pot life of these two-component coatings formulated without solvent will be 1 1/2 to 2 hours which is suitable for some applications. Through the judicious use of solvents, this pot life may be extended up to 8 hours while maintaining extremely low levels of volatile organic compounds. Cured coatings based on this resin combination offer a desirable balance of hardness, flexibility and solvent resistance.

These coatings, in addition to being free of organic solvent odors, are actually more odor free than typical PVA and acrylic interior wall paints.

## Formulating

Two-component, water-reducible epoxy systems based on EPIKURE Curing Agent 8535-W-50 provide excellent cure even when applied over damp concrete surfaces. To illustrate this characteristic, a concrete block was partially immersed in water for two days. The natural wicking action of the block created a damp surface on the portion not in the water. This surface was coated with a white enamel utilizing EPIKURE Curing Agent 8535-W-50. Cure of the white enamel was sufficiently hard overnight to allow successful recoating. This cure was achieved despite the block remaining partially submerged in water. This performance characteristic suggests use of epoxy systems based on EPIKURE Curing Agent 8535-W-50 over damp concrete substrates such as food lockers and all below grade surfaces where moisture is a problem.

The problem of delamination or poor intercoat adhesion of a PVA-based block fill under an epoxy tile coat enamel is very common in areas where moisture is present. A block fill coating utilizing EPIKURE 8535-W-50 circumvents this problem, thus providing an all-epoxy coating system. The block fill coat cures extremely well over dry surfaces, permitting a 16- to 14-hour recoat time. Over saturated concrete surfaces, a 3-day cure period is necessary in order to avoid blistering when recoated. Slightly damp surfaces pose no problem and can be recoated after overnight cure. A short polyethylene fiber is employed in block fill coatings for bridging of voids and prevention of mud-cracking. The performance of the polyethylene fiber is equal to that of the previously used asbestos fibers.

This same block fill coat can be used as the first coat over a variety of masonry surfaces where a topcoat or finish coat of latex or alkyd is desired for long term cosmetic appearance.

In this formula, both the epoxy and curing agent portions are pigmented. This procedure allows formulating to a total weight solids content of 61 percent. The filling and bridging properties over very porous concrete substrates are equal to that of PVA block fill products.

Indicative of the versatility of the EPIKURE Curing Agent 8535-W-50 systems is the adhesion of such widely varied substrates as galvanized metal (electrolytic and hot dip processes), untreated and iron phosphate treated cold-rolled steel and untreated aluminum. Flash rusting is not a problem over untreated cold-rolled steel without additives. Adhesion is also excellent to three and four year old alkyd and epoxy ester enamel films. The coating of wood surfaces such as fir plywood and yellow pine provides sealing and freedom from nap raising.

The self-sealing qualities of an EPIKURE Curing Agent 8535-W-50 and enamel are best demonstrated by its application to wall board, where one coat provides good sealing efficiency.

Asphalt surfaces can be coated with EPIKURE Curing Agent 8535-W-50 enamels without staining or bleed-through. This suggests application in striping paints.

Application properties of EPIKURE Curing Agent 8535-W-50 systems by brush, spray and squeegee are good. As with most water-based paints, spray application exhibits good atomization at high viscosities, especially in pressurized equipment.

Since EPIKURE Curing Agent 8535-W-50 enamels can be tinted with #8800 Universal Colorants 1 with no sacrifice in general film properties, trade sales shelf goods are feasible.

## Safety, Storage & Handling

Please refer to the MSDS for the most current Safety and Handling information.

Please refer to the Hexion web site for Shelf Life and recommended Storage information.

Exposure to these materials should be minimized and avoided, if feasible, through the observance of proper precautions, use of appropriate engineering controls and proper personal protective clothing and equipment, and adherence to proper handling procedures. None of these materials should be used, stored, or transported until the handling precautions and recommendations as stated in the Material Safety Data Sheet (MSDS) for these and all other products being used are understood by all persons who will work with them. Questions and requests for information on Hexion Inc. ("Hexion") products should be directed to your Hexion sales representative, or the nearest Hexion sales office. Information and MSDSs on non-Hexion products should be obtained from the respective manufacturer.

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<http://www.westlakeepoxy.com/en-US/product/epikure-curing-agent-8535-w-50>

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## Packaging

Available in bulk and drum quantities.

## Contact Information

For product prices, availability, or order placement, please contact customer service:

[www.hexion.com/Contacts/](http://www.hexion.com/Contacts/)

For literature and technical assistance, visit our website at [www.hexion.com](http://www.hexion.com)

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