

Technical Data Sheet

Versamid[®] 115 X-70

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| Product Description | Versamid [®] 115 X-70 is a xylene solution of a high viscosity, reactive polyamide resin designed for use with solid or liquid epoxy resins for thermoset coating applications that cure at room temperature. |
| Key Features & Benefits | <ul style="list-style-type: none">- <i>Excellent resistance properties and adhesion</i>- <i>Superior corrosion resistance</i>- <i>FDA compliant*</i> |
| Chemical Composition | Polyamide resin based on dimerized fatty acid and polyamines <i>*The FDA status of this product is available upon request from the contact information below.</i> |

Properties

| | | |
|--------------------------------|--|--------------------|
| Product Specifications | Amine value | 159 – 175 mg KOH/g |
| | Viscosity at 40°C (Brookfield) | 400 – 600 cps |
| | Gardner color | 8 max |
| Typical Characteristics | Solids | 70% |
| | Amine hydrogen equivalent weight (as supplied) | 283 |
| | Density | 7.8lbs/gal |
| | Flash point (Seta) | 80°F |

These typical values should not be interpreted as specifications.

Applications

Versamid[®] 115 X-70 is a xylene solution of a high viscosity, reactive polyamide resin designed for use with solid or liquid epoxy resins for flexible, corrosion-resistant thermoset coating applications that cure at room temperature. This resin is also useful in adhesive applications.

Versamid[®] 115 X-70 and epoxy resin systems are more solvent and chemical resistant than Versamid[®] 100 systems and generally dry faster than Versamid[®] 125 systems.

Versamid[®] 115 X-70 and epoxy resin systems are recommended for applications such as:

- Maintenance coating applications
- Primers

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| Processing | Mix ratio with 190 EEW liquid epoxy is 149 phr. Due to chemical reaction, Versamid [®] 115 X-70 and epoxy resins should not be mixed until just prior to use. |
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Formulations

Zinc-rich Primer Formula

| Part A | Pounds | Gallons |
|---|---------------|----------------|
| Mix the following materials: | | |
| Epoxy resin solution | 124.0 | 13.6 |
| Acetate ester solvent | 43.8 | 6.0 |
| Xylene | 33.1 | 4.6 |
| Silica | 218.9 | 9.9 |
| Disperse to 7+ Hegman, then add: | | |
| Clay thickener | 7.5 | 0.9 |
| Add and mix 5 minutes: | | |
| Acetate ester solvent | 49.6 | 6.8 |
| Xylene | 45.5 | 6.3 |
| n-Butylated urea resin | 7.9 | 0.9 |
| Part B | | |
| Versamid® 115 X-70 (mix prior to use) | 60.3 | 7.7 |
| n-Butanol | 23.2 | 3.4 |
| Acetate ester solvent | 37.2 | 5.1 |
| Xylene | 8.9 | 1.2 |
| Zinc dust grade 44L | 1,959.9 | 33.6 |
| Total | 2,619.8 | 100.0 |

Note: Add zinc dust with agitation to remove lumps. Adjust viscosity between 90 – 100 KU with xylene (to reduce) or clay thickener (to increase).

Formulation attributes

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|-----------------------------|-----------------------|
| Viscosity, combined (Krebs) | 90 – 100 KU |
| Weight per gallon, combined | 26.1 |
| Pigment | 83.2 wt% |
| Vehicle | 5.6 wt % |
| Pigment:Binder ratio | 14.97:1 |
| PVC | 0.74 |
| VOC (Calculated) | 2.94 lbs/gal, 353 g/L |
| Non-volatile | 88.7% |
| Solids (volume) | 59.1% |
| Pencil hardness | HB |
| Crosshatch adhesion | 5B |
| Direct impact | 100 |
| Reverse impact | 40 |
| MEK resistance | > 200 |
| Tack free (B-K Recorder) | 30 minutes |
| Through cure (B-K Recorder) | Overnight |
| Pot life | > 6 hours |

Zinc-rich Primer Formula, Room Temperature Cure

| Part A | Pounds | Gallons |
|---------------------------------------|---------------|----------------|
| Mix the following materials: | | |
| Epoxy resin solution | 135.0 | 15.0 |
| Rheology agent | 15.0 | 1.0 |
| n-Butylated urea resin | 8.6 | 1.0 |
| MIBK | 57.8 | 8.6 |
| Xylene | 57.8 | 8.0 |
| Propylene glycol methyl ether | 57.8 | 7.4 |
| Zinc dust | 2,000.0 | 34.0 |
| Part B | | |
| Versamid® 115 X-70 (mix prior to use) | 78.4 | 10.0 |
| MIBK | 36.7 | 5.4 |
| Xylene | 36.7 | 5.0 |
| Propylene glycol methyl ether | 36.6 | 4.6 |
| Total | 2,520.4 | 100.0 |

Note: Add zinc dust with agitation to remove lumps. Allow ¼ - 1 hr induction time before application. Reduce viscosity as needed for application after induction with Brushing Thinner.

Brushing Thinner Formula

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|-------------------------------|------|
| MIBK | 33% |
| Xylene | 33% |
| Propylene glycol methyl ether | 34% |
| Total | 100% |

Formulation attributes

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|--------------------------------------|-------------|
| Viscosity | Thixotropic |
| Weight per gallon, combined | 25.2 |
| Zinc (dry film) | 92.0% |
| Solids | 86.3 wt % |
| Dry to handle (typical) | 6 – 8 hours |
| Hard dry (typical) | Overnight |
| Full resistance properties (typical) | 7 days |

Safety

General

The usual safety precautions when handling chemicals must be observed. These include the measures described in Federal, State, and Local health and safety regulations, thorough ventilation of the workplace, good skin care, and wearing of protective goggles.

Safety Data Sheet

All safety information is provided in the Safety Data Sheet for Versamid® 115 X-70.

Storage

Versamid® 115 X 73 may absorb moisture and carbon dioxide if left in open containers, which may result in an increased viscosity and some foaming when curing epoxy resins. Therefore, it should be kept in tightly closed containers when not in use and stored in a cool, dry place. Properly stored and protected, an unopened container of Versamid® 115 X-70 should have a shelf life of two years.

Important

While the descriptions, designs, data and information contained herein are presented in good faith and believed to be accurate, they are provided for guidance only. Because many factors may affect processing or application/use, Gabriel recommends that the reader make tests to determine the suitability of a product for a particular purpose prior to use. **NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING PRODUCTS DESCRIBED OR DESIGNS, DATA OR INFORMATION SET FORTH, OR THAT THE PRODUCTS, DESCRIPTIONS, DESIGNS, DATA OR INFORMATION MAY BE USED WITHOUT INFRINGING THE INTELLECTUAL PROPERTY RIGHTS OF OTHERS.**

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