

## Technical Data Sheet

# Versamid<sup>®</sup> I-70

\*Versamid<sup>®</sup> I-70 was previously BASF Versamine<sup>®</sup> I-70

<b>Product Description</b>	<b>Versamid<sup>®</sup> I-70 is a medium viscosity, light colored, fast setting curing agent for liquid and solid epoxy resins that cure at room temperature.</b>
<b>Key Features &amp; Benefits</b>	<ul style="list-style-type: none"> <li>- <b>Excellent chemical resistance</b></li> <li>- <b>Rapid cure</b></li> </ul>
<b>Chemical Composition</b>	<b>Modified aliphatic amine</b>

### Properties

<b>Product Specifications</b>	Amine value Viscosity at 25°C (Thermosel) Gardner color	755 – 835 mg KOH/g 3,000 – 5,000 cps 5 max
<b>Typical Characteristics</b>	Amine value Amine hydrogen equivalent weight (theoretical) Viscosity at 25°C Density Gardner color Flash point	810 mg KOH/g 42 4,000 cps 8.9 lbs/gal 2 > 200°F

These typical values should not be interpreted as specifications.

### Applications

Versamid<sup>®</sup> I-70 is a medium viscosity, light colored, fast setting curing agent for liquid and solid epoxy resins that cure at room temperature. It has been designed specifically for use in solvent-free and high solids coating formulations where outstanding chemical resistance is required.

Coatings based on Versamid<sup>®</sup> I-70 are particularly recommended for high build formulations where gasohol, ethanol and oxidizing acid resistance is required.

Versamid<sup>®</sup> I-70 and epoxy resin systems are recommended for applications such as:

- Adhesives
- Tooling compounds
- Storage tank linings

### Processing

Mix ratio with 190 EEW liquid epoxy is 22 phr. Due to chemical reaction, Versamid<sup>®</sup> I-70 and epoxy resins should not be mixed until just prior to use.

#### Typical Properties of a Versamid<sup>®</sup> I-70 Cured Coating

Gel time (200g mass)	13 minutes
Tack-free time	1 hour, 30 minutes
Through-cure time	7 hours

*Cured with 190 EEW liquid epoxy resin.*

### Typical Cured Resin Properties

Tg	119°C
Tensile strength	7,200 psi
Elongation	3.5%
Flexural strength	10,500 psi
Flexural modulus	592,000 psi

Cured with 190 EEW liquid epoxy resin for 7 days at 25°C.

### Typical Chemical Resistance Properties of Unfilled Castings

Chemical	Weight Gain (%)
10% Acetic acid	0.73
10% Hydrochloric acid	0.33
10% Sulfuric acid	0.40
10% Sodium hydroxide	0.24
Methyl ethyl ketone	1.15
Xylene	0.08
Ethanol	0.08
Gasoline	0.10

Percent weight gain after 7-day cure at 25°C followed by 21-day immersion at 25°C.

### Starting Point Formulation

The following starting point formulations are recommended for an initial evaluation of Versamid® I-70. Additional optimization of the formulations may be required to achieve maximum suitability for specific applications.

#### White Topcoat

Part A	Parts by Weight
Liquid epoxy resin, EEW 190	37.7
Titanium dioxide	15.0
Talc	5.0
Dioxosilane	2.1
Barytes (bleached)	25.8
Tricresyl phosphate	3.0
Xylene	3.4
Propylene glycol methyl ether	8.0
Part B	
Versamid® I 70	8.0
Total	108.0

#### Formulation attributes

Non-volatiles	89.4% by weight
Pot life at 25°C	30 – 60 minutes
Pigment:Binder ratio	1.05:1
Tack-free time at 25°C	2 – 2 ½ hours
Through-cure time at 25°C	15 – 20 hours

### 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® I-70.

### Storage

Versamid® I-70 may absorb moisture and carbon dioxide if left in open containers, which may result in an increased viscosity and 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 from moisture, an unopened container of Versamid® I-70 should have a shelf life of two years.

## Important

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