

Technical Data Sheet

Versamid[®] G-491

Product Description	Versamid[®] G-491 is a modified amidoamine resin developed for reaction with liquid or solid epoxy resins.
Key Features & Benefits	- Low viscosity - Reduced induction time with epoxy resins - Accelerated cure - Wide range of formulation latitude
Chemical Composition	Modified amidoamine resin

Properties

Product Specifications	Amine value	500 – 580 mg KOH/g
	Viscosity at 25°C (Thermosel)	500 – 1,000 cps
	Gardner color	9 max
Typical Characteristics	Amine value	540 mg KOH/g
	Amino hydrogen equivalent weight (theoretical)	68
	Viscosity at 25 °C (Thermosel)	650 cps
	Gardner color	5 +
	Density	7.9 lbs/gal
	Flash point (Seta)	> 200°F

These typical values should not be interpreted as specifications.

Applications

Versamid[®] G-491 is a modified amidoamine resin developed for reaction with liquid or solid epoxy resins. It can be used as all or part of the curing agent component in high solids, adhesive, sealant, electrical potting, coating and flooring applications. It is also suitable for use in fast curing, high strength concrete topcoats, patching compounds, and machinery grouts. In addition, epoxy systems based on Versamid[®] G-491 can be used as concrete sealers and 100% solids coatings.

Versamid[®] G-491 and epoxy resin systems are recommended for applications such as:

- Adhesives
- Sealants
- Electrical potting
- Coatings
- Flooring
- Concrete topcoats, sealers, patching compounds, and machinery grouts

Processing Mix ratio with 190 EEW liquid epoxy resin is 36 phr. Due to chemical reaction, Versamid[®] G-491 and epoxy resins should not be mixed until just prior to use.

Typical Properties of a Versamid[®] G-491 in a Cured Coating

Tack-free time	5.5 hours
Through-cure time	23 hours
Gel time (200 gram mass at 25°C)	34 minutes
Pot life	45 minutes

Cured with 190 EEW epoxy resin.

Typical Cured Resin Properties

Tensile strength	4,700 psi
Elongation	2.9%
Flexural modulus	364,000 psi
Compressive strength	12,300 psi
Heat distortion	188°F

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

Typical Chemical Resistance Properties of Unfilled Castings

Chemical	Weight Gain (%)
10% Acetic acid	12.29
10% Hydrochloric acid	0.86
10% Sulfuric acid	1.32
10% Sodium hydroxide	0.41
Methyl ethyl ketone	Destroyed
Xylene	10.43
Ethanol	4.78

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

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 Versamid[®] G-491.

Storage

Versamid[®] G-491 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 from moisture, an unopened container of Versamid[®] G-491 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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