

Silquest* A-1524 CF Silane

Product Description

Silquest A-1524 CF silane, gamma-ureidopropyltrimethoxysilane is an ureidosilane used to promote adhesion between a wide range of resins and metal or mineral substrates, or to couple the resins to reinforcement such as glass fibers, mineral fillers or glass spheres. Silquest A-1524 CF silane contains a limited amount of residual carbamate and tin content, helping to enhance its regulatory and handling profile. It is also an excellent option to consider as a less yellowing alternative to amine silanes for most applications.

The molecular structure of Silquest A-1524 CF silane is:

MW = 222.4 g/mol

Performance Properties (Key Features/Typical Benefits)

- Limited residual carbamate and tin content
- No contribution to color when aged in resin formulations
- Excellent fuzz control in GF applications
- Solubility in water
- N-H reactivity without the strong basic characteristics of aminosilanes
- Longer pot life than aminosilanes in reactive phenolic, epoxy, urea-melamine or polyurethane resin formulations

Typical Physical Properties(1)

1. Appearance	Viscous liquid
2. Color	Pale yellow
3. Active Ingredient	Contains no diluents
4. Density, 25 °C	1.15 grams/cm ³
5. Flash Point ⁽²⁾ , Closed Cup	86 °C
6. Boiling Point Range, at 1,1013 hPa	217-250 °C
7. Carbamate Content	< 0.1wt%
8. Tin Content	< 0.1wt%

⁽¹⁾ Typical properties are average data and are not to be used as or to develop specifications.

(2) ASTM Method D56

Recommended Applications/Basic Uses

- · Coupling agent for insulation phenolic wool binders and glass fiber sizes used to reinforce nylon resins
- Finish for woven glass fiber fabrics
- Treatment for particulate fillers used to reinforce nylon, phenolic or epoxy resin
- Additive for foundry sand and abrasive grinding wheel binders
- Adhesion promoter in urethane-based coatings, sealants and caulks
- Component in primers

General Considerations for Use

Silquest A-1524 CF silane usage level is dependent upon the surface area of the particulate filler or glass fiber reinforcement. Typical starting concentrations range from 0.5 to 1 weight percent, based upon the weight and type of reinforcement used. Sand and other low surface area fillers or substrates may require less than 0.1 weight percent silane.

When Silquest A-1524 CF silane is added to a resin formulation, the usage level is typically in the range of 0.5 to 1 weight percent, based on the weight of the resin.

Silquest A-1524 CF silane is soluble in methanol, ethanol, acetone, toluene and water. The silane hydrolyses in water and releases methanol. The hydrolysis product of Silquest A-1524 CF silane, gamma-ureidopropylsilanetriol, is generally stable at one weight percent in water at pH of 4 for more than 72 hours.

Silquest A-1524 CF silane freezes at temperatures below 5 °C. While freezing does not harm Silquest A-1524 CF silane, it should be avoided; if freezing does occur, stirring the material well after thawing is recommended to help ensure uniform concentration.

Availability

Silquest A-1524 CF silane is currently available in pail and drum quantities.



Patent Status

Nothing contained herein shall be construed to imply the nonexistence of any relevant patents or to constitute the permission, inducement or recommendation to practice any invention covered by any patent, without authority from the owner of the patent.

Product Safety, Handling and Storage

Customers should review the latest Safety Data Sheet (SDS) and label for product safety information, safe handling instructions, personal protective equipment if necessary, emergency service contact information, and any special storage conditions required for safety. Momentive Performance Materials (MPM) maintains an around-the-clock emergency service for its products. SDS are available at www.momentive.com or, upon request, from any MPM representative. For product storage and handling procedures to maintain the product quality within our stated specifications, please review Certificates of Analysis, which are available in the Order Center. Use of other materials in conjunction with MPM products (for example, primers) may require additional precautions. Please review and follow the safety information provided by the manufacturer of such other materials.

Limitations

Customers must evaluate Momentive Performance Materials products and make their own determination as to fitness of use in their particular applications.



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