



VITE-AMINE 90

SS/MS/FS

Before beginning installation, thoroughly review all product and system information and diligently study the Safety Data Sheets (SDS). Initiate the installation only once you have gained a comprehensive understanding of the product and the system. Prioritize workplace safety at all times - Personal Protective Equipment (PPE), as specified in the SDS, should be worn and utilized throughout the installation process. Remember, the longevity and performance of the final product hinge on proper surface preparation - the foundation of successful installations.

PRODUCT NAME

VITE-AMINE 90 Slow, Medium and Fast Set (SS/MS/FS)

PRODUCT DESCRIPTION & USE

The VITE-AMINE 90 is a clear, high-gloss polyaspartic floor coating that boasts 90% solid content. Its distinguishing feature is its UV stability and the ability to rapidly develop hardness, allowing for quick walk-on times and expedited return-to-service intervals.

This product exhibits versatile usage, functioning as a premium thin-to-medium build body coat, a top coat, and even as a primer on suitably prepared surfaces where a swift return to service is a priority. Moreover, VITE-AMINE 90 is an ideal protective top layer over compatible epoxy coatings, flake flooring, quartz flooring, and a variety of other decorative floor finishes that require a UV-resistant coating.

The VITE-AMINE 90 floor coating system provides an innovative approach to adaptability, offering three unique setting speeds - Slow (SS), Medium (MS), and Fast (FS). Each of these distinct Part A variants can seamlessly be combined with a universally compatible VITE-AMINE 90 Part B (crosslinker).

This novel configuration empowers the applicator with the ability to adjust the curing speed according to the project's requirements. Whether it's adapting to different applications or varying environmental conditions, VITE-AMINE 90 grants unparalleled versatility. It's not just a floor coating, it's a customized solution designed to cater to your unique needs and settings.

ADVANTAGES & LIMITATIONS

ADVANTAGES

- UV Stability ensures long-lasting colour and finish.
- The water-clear decorative finish enhances the aesthetic value.
- It exhibits rapid physical property development even in cooler environments.
- A single product can serve as the primer, mid-coat, and top coat, facilitating one-day floor installations.
- Vapour permeability when applied in thin films
- High film build of 250 µm (10 mil) + DFT is suitable for a single application as a protective top coat over decorative floors.
- On-site tinting is possible using suitable ALLUVERSAL Colorant
- It's a Non-HAP (SARA Section 313) product and low VOC when calculated using exempt solvent in accordance with 40CFR51.100.

LIMITATIONS

- The working time might not be suitable for inexperienced applicators.
- If substrates are poorly prepared, the coating is susceptible to failure.
- Not recommended for single coat applications exceeding 500 µm (20 mil).
- High film builds may exhibit minor shrinkage during curing.
- The mild odour may be unpleasant for some installers.
- While it helps, it does not entirely prevent discolouration of non-UV stable coatings that are overcoated.
- Not suitable as a primer for concrete with high moisture content and high alkalinity readings.
- Rapid curing aromatic coatings and repair materials should be tested for compatibility as aromatic materials can in some instances migrate through the film causing discolouration





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COLOUR

Transparent coating in cured film. Field tinting is possible with ALLUVERSAL Colourant.

APPLICATION & USE

SURFACE PREPARATION

Ensure new concrete has been left to cure for at least 28 days. Eliminate any oil or grease residues using an appropriate surface degreaser. Thoroughly remove all curing agents, bond breakers, and foreign impurities. Mechanically dislodge any laitance or weak and crumbling surfaces, then prepare the substrate through diamond grinding or shot blasting to attain a Concrete Surface Profile (CSP) of 2 or higher. Make sure to eliminate all dust before applying the material. For more detailed instructions and guidance on surface preparation, refer to the "Alluvius Technical Bulletin SP-1"

MIXING

Combine one part of Component A with one part of Component B by volume (1:1 v/v) and mix using a slow-speed drill maintaining a speed below 300 RPM for no more than one minutes until a uniform mixture is achieved. Exercise caution to prevent excess air from being incorporated into the product. Following the mixing process, promptly pour the mixture onto the desired surface in a continuous, elongated pattern. For more detailed instructions, techniques, and guidance on mixing, refer to the "Alluvius Technical Bulletin: Mixing of Multiple Component Alluvius Polymeric Materials".

APPLICATION

VITE-AMINE 90 can be applied using a T-bar applicator, a magic trowel, or an appropriate non-linting roller cover. For optimal application, we recommend using either a magic trowel or a T-bar applicator initially, followed by a secondary application with a non-linting roller cover to ensure even coverage.

It's crucial not to overwork the product for an extended duration, as the coating will quickly thicken, building up viscosity within 10 minutes post-mixing. Any disruption to the film beyond this time might lead to a curing process characterized by heightened levels of "orange peel" texture and potential markings from the roller and application process.

COVERAGE RATE

VITE-AMINE 90 offers a versatile application rate ranging from 2.5 m² per litre to 5 m² per litre (100-200 sqft/gallon). This correlates to a Wet Film Thickness (WFT) of 400 µm down to 200 µm (16 mil to 8 mil), specifically when applied on smooth, non-permeable surfaces. For roll coats, typical application rates range 2.5 m² per litre to 4 m² per litre (100-160 sqft/gallon). Do note, however, that surfaces that are porous or uneven, including those with a high surface area such as flake and quartz flooring, may result in lower coverage rates.

RECOATING

Recoating with VITE-AMINE 90 can be efficiently achieved without necessitating abrasion or sanding of subsequent layers, as long as the reapplication is performed within a 4-hour period. On the other hand, if the recoating with VITE-AMINE 90 is attempted after this 4-hour window, the previously applied VITE-AMINE 90 layer will require sanding to reach a minimum profile of 125 microns, equivalent to a 120# mesh sanding screen. Before attempting to recoat, it's crucial to ensure that the surface is entirely devoid of gloss. Should the VITE-AMINE 90 coated surfaces be allowed to cure for more than 5 days, further testing will be required to determine the suitability of reapplication without additional surface preparation to ensure optimal adhesion. For detailed guidance on this matter, please reach out to our technical consultants.





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ENVIRONMENTAL CONDITIONS DURING INSTALLATION

Consideration of environmental conditions at the time of application is crucial. High humidity can hasten the curing process of VITE-AMINE 90 and subsequently shorten the working time. It is advisable to avoid the installation of VITE-AMINE when humidity levels exceed 80%. VITE-AMINE can be effectively applied within a wide temperature range, from as low as -18°C (0°F) to as high as 35°C (95°F).

CLEAN UP

Thoroughly clean all tools and materials with solutions or solvents compatible with polyaspartic coatings, such as dibasic ester or xylene, where approved,. Rigorously wash hands and any exposed skin with warm water and soap. Any clothing that comes into contact with the product should be promptly removed. Bear in mind that once the product has hardened, it can only be removed mechanically. Roller covers are single-use and should be safely discarded once the materials have solidified.

PROPERTIES OF MATERIAL

PROPERTY	VALUE
Solids By Weight	90% (+/- 1%)
Part A Density	1.0 – 1.1 g/cm ³
Part B Density	1.05 – 1.15 g/cm ³
Mix Ratio By Volume	1 Part A to 1 Part B (1:1 v/v)
Mix Ratio By Weight	1.1 Part A to 1 Part B (1.1:1 w/w)
Volatile Organic Compounds (VOC)ASTM D-2369	>100 grams per litre
Pot Life (Ca. @ 25°C)	Fast Setting (FS), Medium Setting (MS), and Slow Setting (SS) variants is 15, 30, and 40 minutes, assuming a 300-gram mass.
Gelation Time (Ca. @ 25°C)	Fast Setting (FS), Medium Setting (MS), and Slow Setting (SS) variants is 8, 16, and 40 minutes, with a 400 µm WFT.
Dry to Touch Time (Ca. @ 25°C)	Fast Setting (FS), Medium Setting (MS), and Slow Setting (SS) variants is 25, 40, and 90 minutes, when applied at 400 µm WFT
Recoating Time (Ca. @ 25°C)	Fast Setting (FS), Medium Setting (MS), and Slow Setting (SS) variants is 35, 55 and 150 minutes, when applied at 400 µm WFT
Open to Light Foot Traffic (Ca. @ 25°C)	Fast Setting (FS), Medium Setting (MS), and Slow Setting (SS) variants is 2, 4, and 18 hours, when applied at 400 µm WFT
Open to Heavy Traffic (Ca. @ 25°C)	Fast Setting (FS), Medium Setting (MS), and Slow Setting (SS) variants is 2, 4, and 18 hours, when applied at 400 µm WFT
Full Cure (Ca. @ 25°C)	Fast Setting (FS), Medium Setting (MS), and Slow Setting (SS) variants is 7, 7, and 10 days, when applied at 400 µm WFT
ASTM D-523 Gloss 60°	90-100
Adhesion to Dry Concrete	Cohesive Concrete Failure (1.5 MPa)
Adhesion to Damp Concrete	Not recommended





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RESTRICTIONS

- Concrete substrates must be sound and have a minimum compressive strength of 21 MPa, with a minimum surface pull-off strength of 1.5 MPa.
- The substrate must be clean, removed of any standing water and free of all contaminants, e.g., dirt, oil, grease, coatings and surface treatments, etc.
- Humidity should be less than 80% at time of application.
- Substrates with moisture content equal to or greater than 4% will not be over-coated without first contacting the manufacturer in writing for further instructions.

STORAGE & PACKAGING

Material is to be stored from 10°C (50°F) to 35°C (95°F) and away from direct sunlight. Materials are best used within 12 months of the date of manufacture if kept in original sealed containers. VITE-AMINE 90 is available in 9.45 litre (5 gallon), 37.8 litre (10 gallon) and 1890 litre (500 gallon) kits or custom packaged upon request if purchased in volume.

DISPOSAL

Please be aware that product containers will hold residual amounts of product and must be handled with care. Adhere to the warnings detailed on the labels at all times. All containers must be disposed of following federal, state, and local regulations to ensure responsible waste management.

HEALTH & SAFETY PRECAUTIONS

Please consult the Safety Data Sheet (SDS) for comprehensive guidance on handling VITE-AMINE 90 safely.

- During the mixing and application process, always wear gloves resistant to chemicals, eye protection, approved respiratory equipment, and protective clothing, as stipulated in the most recent version of the SDS
- Ensure that your workspace is well-ventilated and avoid inhaling any fumes
- VITE-AMINE 90 is known to sensitize skin. If the product comes into contact with your skin, cleanse immediately with warm soapy water and change out of contaminated clothing. If dermatitis symptoms occur, seek immediate medical attention.
- Prior to full-scale application, it is recommended to test VITE-AMINE 90 for suitability on a small area of the actual job site.

ADDITIONAL NOTES

- The specifics provided for working time, cure time, and coverage should not be considered absolute; they are subject to change based on site conditions
- We strive to provide typical values to be used as a reference

DISCLAIMER

The data provided in this technical document is a culmination of our laboratory testing and practical experience. However, this document does not constitute a guarantee for the product's properties in terms of any legally stipulated warranties. Should you need further clarification or information to make an appropriate assessment, we encourage you to reach out to us directly. All Alluvius products are manufactured according to strict specifications, and while we can vouch for the quality of the product itself, we do not control the conditions under which the products are transported, stored, or handled, and we cannot predict or oversee the conditions under which they will be used. Therefore, we strongly advise each user to study this product data sheet in light of their intended handling and usage of the product and to conduct comprehensive tests before adapting the product for their specific uses. Please note that we reserve the right to alter the provided data without any prior notice.

