Polyguard GFVE 3755

GLASSFLAKE NOVOLAC VINYL ESTER PRIMER

Product Description:

PolyGuard GFVE Primer 3755 is a novolac vinyl ester-based formula with excellent bonding and adhesion properties. It is well-suited for improving the performance of various polyester and vinyl ester linings, coatings, and flooring systems. Additionally, it works effectively as a primer for PolyGuard Hybrid Polymer systems.

Typical Uses:

Applied as a key primer for vinyl ester systems on both steel and concrete surfaces, it plays a crucial role within Polyguard lining systems.

Technical Properties:

Color / Shades	Translucent Blue
Gloss	-
Volume Solids	100% Reactive
Mix ratio	100:2 by volume
Typical Thickness	50-120 microns [2-5 mils] dry equivalent to 50-120 microns [2-5 mils] wet
Coverage	7.5 m²/litre [305 sq.ft/gal]
Flash Point (Typical)	Part A: 33^{0}C (91.4^{0}F) Part B: 77°C (170.6°F) Mixed: 32^{0}C (90^{0}F)
VOC	1.01 kg/l [8.4 Ib/gal]
Reducer/Thinner	Not Recommended, **DO NOT THIN**
Cleaner	Thinner 1410 **N.B. Clean all equipment immediately after use.**

Drying Time

Temperature		**10°C** [50°F]	**15°C** [59^{0}F]	**25°C** [77^{0}F]	**35°C** [95^{0}F]
Touch Dry		3 Hour	150 Mins	60 Mins	45 Mins
Hard Dry		15 Hour	12 Hour	3 Hour	2 Hour
Recoat	Min	5 Hour	3 Hour	2 Hour	1 Hour
	Max	4 Weeks	2 Weeks	1 Week	3 Days
Pot Life		40 Mins	45 Mins	30 Mins	20 Mins

When surface temperatures exceed 35ºC or when exposed to direct sunlight, it is advisable to apply the overcoat only after the coating has become tack free to ensure proper intercoat adhesion.

Surface Preparation:

Before applying the primer PolyGuard GFVE Primer 3755, ensure all surfaces slated for coating are thoroughly cleaned, dried, and devoid of any contaminants.

For steel surfaces, adhere to the guidelines outlined in ISO 8504:2000 for proper assessment and treatment prior to painting. Oil or grease should be removed in accordance with SSPC-SP1 Solvent Cleaning Procedure.

Steel Substrates: For immersion service, humid conditions, or elevated temperatures, prepare surfaces by abrasive blast cleaning to Sa3 (ISO 8501-1:2007), SSPC SP5, or NACE #1. In dry environments, opt for

abrasive blast cleaning to Sa2½ (ISO 8501-1:2007), SSPC SP10, or NACE #2. Maintain a minimum surface profile of 3 mils (75 microns).

Apply PolyGuard GFVE Primer 3755 Primer before steel oxidation sets in. If oxidation occurs, reblast the entire affected area to the specified standard. Surface defects revealed during blast cleaning should be addressed by grinding, filling, or treating them accordingly.

Concrete Substrates: Ensure that concrete is thoroughly cured before applying the flooring, lining, or coating system. For detailed guidance, consult the Concrete Surface Preparation Guidelines.

Application:

Application Method	Thinning	
Airless Spray	-	**Recommended** **Tip:** Range 25-35 thou (0.63-0.89 mm) Total output fluid pressure at spray tip not less than 3000 psi (211 kg/cm²)
Air Spray	-	**Not Recommended**
Brush	-	**Suitable:** Small areas & Strip Coating only Typically, 3.0 mils (75 microns) can be achieved
Roller	-	**Recommended,** Use a short nap roller for better result.

For brush application, use nylon or polyester bristles. A 3/8" woven roller cover with a solvent-resistant core should be used for roller application.

Note:

- Material is supplied in two containers as a unit. Always mix a complete unit in the proportions supplied. Once the unit has been mixed, it must be used within the working pot life specified.
- Agitate Base (Part A) with a power agitator.
- Combine the entire contents of the Curing Agent (Part B) with Base (Part A) and mix thoroughly with the power agitator.
- An optional retarder solution is available for this material. (See Product Characteristics for details.)

Application Guidelines

The detailed Application Guidelines for the relevant TRPL system should always be consulted prior to use

The exact specification with regards to dry film thickness and number of coats will be provided by TRPL Protective Coatings prior to application start up. Although PolyGuard GFVE Primer 3755 is 100% reactive, depending upon the application conditions, the practical volume solids may be lower and TRPL Protective Coatings suggest a value of 75% for estimating spreading rate.

Typical Thickness:

Primer: 50-125 microns (2-5mils) dry equivalent to 167 microns (2.7-6.7 mils) wet.

For concrete, a theoretical coverage rate of 305sq.ft/ US gallon (7.5m²/litre) is suggested (depending on porosity of concrete). Film thicknesses on concrete are not relevant as the intention is only to seal the porosity, not apply a layer over the concrete.

Laminate (Resin saturated glass mat): 32 mils (800 microns) with a theoretical coverage of 1.34m²/ litre (50sq.ft/US gallon).

Storing **PolyGuard GFVE Primer 3755** at elevated temperatures reduces its shelf life. When stored below 25°C (77°F) in its original sealed containers, the uncatalyzed primer remains stable for three months from

the date of manufacture. Avoid storing the primer in direct sunlight. To extend shelf life and pot life during airless spray application, consider refrigeration to keep material temperatures as low as possible. The recommended storage temperature range is 8°C-19°C (46°F-66°F).

Ensure that surface temperature remains at least 3°C (5°F) above the dew point at all times. Adequate ventilation is essential during application and curing, and it may be necessary to use dehumidification (DH), air conditioning, and/or heating equipment to control environmental conditions.

Throughout all application steps, maintain surface temperature, air temperature, and material temperature between 10ºC (50ºF) and 43ºC (110ºF). When applying via airless spray, avoid excessive thickness, and back-roll the materials for optimal adhesion, ensuring intimate contact with the surface.

If the overcoating interval is exceeded, confirm recoatability by wiping with styrene monomer. If the surface becomes 'tacky', adhesion is acceptable. If not softened by styrene, sweep blasting or mechanical abrasion is necessary to provide a non-glossy, abraded surface. The primed surface must be dry and free of foreign matter at the time of lining, coating, or flooring application.

For temperature limits specific to particular environments, consult TRPL Protective Coatings.

Note: VOC values are typical and are provided for guidance purposes only. These may be subject to variation depending on factors such as differences in color and normal manufacturing tolerances. Low molecular weight reactive additives, which will form part of the film during normal ambient cure conditions, will also affect VOC values.

Recommended Systems

PolyGuard GFVE Primer 3755 is designed for application to correctly prepared substrates. It is compatible with various TRPL coatings and linings; consult TRPL Protective Coatings or further advice.

Safety Precautions

- This product is exclusively intended for use by professional applicators within industrial settings. All activities related to its application and usage must adhere to relevant national Health, Safety, and Environmental standards, regulations, and legislation.
- Ensure proper ventilation during application and curing, as specified in the product datasheets for typical curing times, to maintain safe limits and prevent fires and explosions. Confined spaces necessitate forced extraction. During application and curing, provide ventilation and/or respiratory personal protective equipment such as airfed hoods or suitable cartridge masks. Take precautions to prevent skin and eye contact using appropriate gear like overalls, gloves, goggles, masks, or barrier cream.
- Before usage, thoroughly review and follow the guidance outlined in the Material Safety Data Sheets (Base and Curing Agent if two-pack) and the Health and Safety section of the Coatings Applications Procedures specific to this product.
- Welding or flame cutting on metal coated with this product emits dust and fumes requiring the use of suitable personal protective equipment and ample local exhaust ventilation.
- Detailed safety measures depend on application methods and the work environment. If there's any uncertainty regarding these warnings and instructions, or if strict compliance isn't feasible, refrain from using the product and consult TRPL Coatings.

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Pack Size

Unit Size	Part A		Part B	
	Vol	Pack	Vol	Pack
15 Liters	14.71 Liter	20 Liter	0.29 Liter	1.0 Liter
5 Liters	4.90 Liter	20 Liter	0.1 Liter	0.2 Liter

For availability of other pack sizes contact TRPL's Protective Coatings

Storage

Shelf Life: 6 Months minimum at <20°C [68^{0}F] in sealed condition, subject to reinspection thereafter.

Storage Conditions: Store in dry shaded conditions, away from sources of heat & ignition. During storage & shipment, PolyGuard GFVE Primer 3755 initiator must not be exposed to temperatures exceeding 30^{0}C (90^{0}F). Refrigeration recommended. Best practice would be to hold Parts A and B in separate stores.

Safety: Handle with care. Before & during use, observe all safety labels on packaging and paint containers, consult Material Safety Data Sheets, and follow all local or national safety regulations. Avoid inhalation, avoid contact with skin & eyes, and do not swallow. Take precautions against possible risks of fire or explosions as well as protection of the environment. Apply only in well-ventilated areas.

Disclaimer: The information in this document is given to the best of TRPL's knowledge, based on laboratory testing & practical experience. TRPL products are considered semi-finished goods, as such products are often used beyond TRPL's control. TRPL can not guarantee anything but the quality of the product itself. Minor product variations may be implemented to comply with local requirements. TRPL reserves the right to change the given data without further notice. User should always consult TRPL for specific guidance on the general suitability of the product for their needs and specific application practices.