VOLATILEFREE INC®
MANUFACTURER OF HIGH PERFORMANCE POLYMERS

Sustainability
Durability
Flexibility

VFI #11 TWO COMPONENT WATER BASED EPOXY PRIMER

Overview

Description
VFI-#11 is a two component 9 to 1 ratio, water based epoxy primer. With excellent adhesion and high strength to galvanized metal, steel, wood, copper and concrete surfaces. Designed for application temperatures of 50˚F or more. See "Limitations."

Usage
Primary usage on galvanized metal roof panels.
- May also be used as a general purpose primer and for masonry block filler. It adheres well to most metals, organic polymers, wood and masonry.
- Do not use on silver.

Color
Standard mixed color is salmon.

Physical Properties

Hardness
Cures to form a hard, lusterless coating material. However, approximately 7 days at 60° F to 80° F is required to achieve maximum hardness.

Adhesion
Excellent adhesion to most surfaces at recommended application rate. Most coating materials have excellent adhesion to VFI-#11 primer. Too much primer will reduce adhesion strength.

Weather & Environmental Performance

Service Temperature
-40° to 180°F

Weatherability QUV Test Data
Not intended for continuous exterior use by itself

Chemical Resistance
Good solvent, fair acid, excellent alkali resistance

Water Vapor Permeability
Cures to form a solvent and vapor resistant film

Liquid Component Properties

Ratio

Volume	9 parts Poly to 1 part ISO
Weight	14 parts Poly to 1 part ISO

Coverage
Coverage rates vary between 100-400 sq.ft./gal depending on substrate conditions of existing roof system. Contact VFI's Technical Department for more information on your specific application.

Solids

Weight	60%
Volume	42.5%

Consistency
Part A is red. Part B is amber. When combined, the resulting product becomes a thixotropic primer with easy spreadability.

Liquid Material Density & Specific Gravity

"A" Side	12.27 lbs/gal (SG 1.473 g/ml)
"B" Side	7.86 lbs/gal (SG 0.945 g/m)

VOC
The volatile organic solvent content is 80 grams per liter (high flash, aromatic solvent in part B)

Toxicity
Part B contains a polyamide resin which is non-sensitizing. However, care should be taken to thoroughly clean skin that comes into contact with VFI-#11 with soap and water. Undiluted vinegar is very effective in neutralizing coating that contacts skin. See MSDS for complete details.

- **Storage Stability or Shelf Life**
  One year. Protect from freezing in shipment and storage.
- **Pot Life**
  2 hours at 75° F; can be extended to 3 hours by thinning with water to achieve the original consistency. Pot life at 55° F is doubled, however at 100° F it is reduced to 45 minutes.
- **Recoat Time**
  Minimum of 8 hours after application and is re-coatable for up to 7 days. Best adhesion is achieved in 1 to 3 days cure. Primer cured over 7 days should be cleaned and re-primed prior to top coating.

Application

- **Equipment**
  Brush, Roller and almost any single-component Spray Equipment.
- **Material Preparation**
  The product must be over 65˚ F for proper mixing and application.
- **Mixing**
  - The two components are prepackaged in correct proportions (9 parts by volume of part A to 1 part of part B)
  - The mixing ratio by volume is 9 parts of epoxy to 1 part of curing agent. The mixing ratio is 14 to 1 by weight
  - After combining, mix thoroughly
  - Power mixing is recommended for quantities over 1 gallon
- **Substrate Preparation**
  All surfaces must solid and free of contaminants and be able to provide mechanical adhesion.
- **Primer Application**
  - **Block Filler**
    Use long nap (¾" to 1") rollers for porous concrete to fill all voids. If blowholes form as the primer dries, make a second pass with a relatively dry roller. Allow 8 to 10 minutes between passes.
  - **Smooth Surfaces**
    Add about 5% of water per pail of VFI-#11. Use a ¼" or ⅜" nap roller or nylon brush. VFI-#11 can be sprayed using conventional equipment, however the applicator must take precautions against inhalation of particulate matter. Use of a proper respirator is necessary. Most coatings can be applied over VFI-#11 primer as soon as it is thoroughly set. This degree of dryness is normally achieved in eight hours.

    Most coatings best adhesion is achieved when applied to VFI-#11 primer that has cured 1 to 3 days. All Volatile Free, Inc. elastomers and most commercial paints will adhere well to cured VFI-#11.
- **Clean Up**
  Clean skin with water and soap or small quantity of vinegar. Water and detergent should be used to clean out sprayers. Follow with Methyl Ethyl Ketone to finish cleaning. Drying spray equipment in order to avoid buildup and corrosion. Determine that your hoses can tolerate solvent.
- **Limitations**
  Do not apply to surfaces that are above 130° F unless special instructions are secured from Volatile Free, Inc. The temperature must be above 50° F for 24 hours after application for proper curing and adhesion.

  Not for continual submersion in liquid, VFI-1003 will be substituted for this application. Contact VFI's Technical Department for appropriateness of this product for your specific application.
- **Precautions**
  See Safety Data Sheet for complete safety data. When spraying, use a chemical and particulate matter respirator to avoid inhalation of paint.
- **Thinning**
  Thin with water as needed up to 10% max.
- **Packaging**
  - 1 gallon kit contains 0.90 gallon of epoxy supplied in a 1 gallon can and 0.1 gallon of polyamide resin in a pint container
  - 5 gallon kit contains 4.5 gallons of epoxy supplied in a 5 gallon can and 0.5 gallons of polyamide resin is in a ½ gallon can