# FR-K1 Kevlar Roof Coating

www.finalflatroof.com (866) 637-ROOF (7663)



## **Description:**

FFR-K1 is a flexible multi-purpose Kevlar reinforced Thermo-Set designed to protect a variety of surfaces including asphalt, single-ply, PVC, TPO, rubber, concrete, foam, wood, and metal. FFR-K1 is also suitable for coating petroleum-based surfaces such as tar or rubber cement. It is especially suited to applications where surface movement may defeat the protection of a rigid, non-reinforced coating.

## **Application Areas:**

FFR-K1 is excellent for waterproofing EPDM, TPO, PVC, built-up, single ply, polyurethane foam, concrete, and metal roofs. The flexibility retained by FFR-K1 allows for surface movement caused by thermal shock to most structures.

## **Advantages & Benefits:**

- Single component, no mixing.
- Adheres even to damp surfaces without priming. Withstands ponding water.
- Can be installed in freezing conditions. Retains flexibility in sub zero conditions.
- Withstands attacks from most chemicals, traffic, and severe environments.
- Highly thixotropic allowing for ease of application
- Surface temperature will not exceed 10°F above ambient. High Albedo reduces heat and lowers energy cost
- Low sag minimizing dripping.
- Kevlar reinforced (520,000 psi)
- Class "A" fire rated
- EPA Registered / Energy Star Approved.
- Sustainable roofing system that saves expensive removal and disposal cost.
- Cellulous bond to concrete and wood.
- 100% adhesion of product to substrate
- 10 –20 yr. extendable warranty available for roofs.

## Color:

FFR Standard Color (White)



Custom colors and specs available with minimum order of 3000 gallons.

## Coverage:

Brush, Squeegee or roller approximately 50 Sq. Ft. per gallon

Dry Film Application Rate:

To yield dry film of Apply Sq. Ft/gallon

16 mils: 100 Sq. Ft. 32 mils: 50 Sq. Ft.

#### **Surface Preparation:**

Surfaces must be cleaned free of grease, oil, films, dust, or any other contaminants.

#### Roof:

Surfaces should be pressure washed to remove any barrier films.

#### **Metal:**

must be free of mill scale, oils, etc.

#### **Hard-finished concrete:**

Should be etched to provide profile or "tooth" for optimal adhesion. These preparation procedures are general guidelines. Consult FFR technicians for further details or special preparation procedures. Roofing specifications are also available for various substrates.

#### Mixing

## \*\*\*\*\*No Mixing Required\*\*\*\*\*

**FFR-K1** is the only one-part Kevlar reinforced Thermo-Set roof coating in the world. Just open up the bucket and apply. After application is finished just reseal bucket and FFR-K1 can be used at a later date.

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FFR-K1 is a UV / moisture cured reflective roof bonding agent. No other roof product in the world can be installed under water and in freezing conditions.

# **Application:**

FFR-K1: can be applied by brush, squeegee or roller at approximately 50-sq. ft. per gallon. A 2-2.5 gallon per 100 sq. ft. application is recommended to help insure complete protection. Surfaces subject to significant movement or other difficult conditions may require heavier applications and the use of FFR Scrim. All penetrations or transitions of surface materials should be coated prior to field. Surface configuration or area surroundings may dictate application method.

Dry Film Application Rate:

To yield dry film of Apply Sq. Ft/gallon

16 mils: 100 Sq. Ft. 32 mils: 50 Sq. Ft.

# **Limitations:**

Do not apply heavier than 32 dry mils per coat. If more is needed, apply in multiple coats. Allow FFR-K1 to become tack-free before applying additional coats or approximately 5 hrs. @ 75°F. FFR-K1 can be installed in wet conditions, under water and cure in sub-freezing temperatures.

## **Curing Time:**

(when exposed to UV or Moisture)

Shelf Life- 1yr 35° to 80°F Pot Life- 5hrs @ 80°F Drying Time- 16hrs @ 80°F Complete – 14-30 days @ 80°F

## Mixing:

None Required

### **Packaging:**

5-gallon units: 13.24 lbs/gal

## Clean Up:

Ventilate area. Confine spills. Collect with absorbent material. Dispose of in accordance with current, applicable local, state, and federal regulations. Uncured material can be removed with Steam. Cured material can only be removed mechanically. Application equipment cannot be cleaned. Use gloves and protective wear at all times. FFR-K1 is non-toxic and low VOC. Rub hands under cold water to cure product on skin once dry it can be scraped off. Once it sets and is cured, it is difficult to remove.

## Flammability:

Flammable during application. Will not support combustion when cured.

## **Solids Content:**

95% Solids

#### **Density:**

13.24 pounds per gallon

## **Set to touch time:**

3 hours

#### Tack Free:

5 hours

## **Open to traffic:**

16 hours

### Salt-Fog Testing (ASTM B-117):

500 hrs - pass

# Water Vapor Transmission (ASTM E-96):

Permeance (expressed in perms): < 0.73

#### **VOC: Title 24 Low VOC**

< 0.4 pounds per gallon < 50 g/liter (VOC exempt list)

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## **Shore Hardness:**

Circa 70A

## **Adhesion:**

1670 lbs. / sq. in.

# Fire rating( ASTM E-108):

Class "A" fire rating

# **Kevlar Resin Tensile Strength:**

525,000 psi

# **Kevlar Breaking Tenacity:**

424,000 psi

## **Kevlar Thermal Conductivity:**

.03 (BTU x in./(h x ft x °F) Shows no embrittlement or degradation at temperatures as low as -320°F

### General:

FFR-K1 should be applied in well-ventilated areas. Surfaces should be free of foreign matter. **DO NOT** apply near open flame.

#### First Aid:

**Eyes:** Hold eyelids apart and flush throughly with water for 15 minutes.

**Skin:** Remove contaminated clothing. Wash skin throughly for 120 minutes with soap and cold water until product cures.

**Inhalation:** Remove person to fresh air.

**Ingestion:** Do not induce vomiting. In all cases, contact a physician immediately if symptoms persist

## Safety:

Adequate health and safety precautions should be observed during storage, handling, use, and drying periods. For safe usage, user is specifically directed to consult the current Material Safety Data Sheet for this product. When using this product in a confined space or closed area, consult the OSHA or ANSI bulletins on safety requirements.

The information as set forth in the technical data contained herein has been developed based on test and evaluations made by Final Flat Roof. for standard coating applications. We believe this information is the best currently available on the subject. It is offered as possible helpful suggestion, any experimentation you may care to undertake along these lines, is at your own risk. Application guidelines must be followed to receive warranty.

FFR shall have no liability for incidental or consequential damages, indirect or direct. Our liability is limited to the net selling price of the purchased product(s) or the replacement of our product, at our option.

## Warranty:

Final Flat Roof warrants this product for up to 20 years from date of installation to be free from manufacturing defects. User determines suitability of product for intended use and assumes all risks. Buyer's sole remedy shall be limited to the purchase price or replacement of product exclusive of labor or cost of labor. NO OTHER WARRANTIES EXPRESS OR IMPLIED SHALL APPLY INCLUDING ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. FINAL FLAT ROOF SHALL NOT BE LIABLE UNDER ANY LEGAL THEORY FOR SPECIAL CONSEQUENTIAL DAMAGES.SPECIAL OR CONSEQUENTIAL DAMAGES.

For further assistance, contact one of our technicians via phone or e-mail. For emergency information contact:

CHEMTREC @ 1-800-424-9300