
PHYSICAL PROPERTIES:

Density:

Fresh applied: 55 – 60 lbs/ft³

Cured dry: 26 – 29 lbs/ft³

Compressive Strength (ASTM E761): 22,716 lbs/ft²

Bond Strength (ASTM E736): 2,188 lbs/ft²

Surface Flame Spread (ASTM E84): 0

Smoke Developed (ASTM E84): 0

Combustibility (ASTM E136): Noncombustible

DESCRIPTION:

V-Wrap FPS – Fire Protection System is a single component, spray applied, specialized fireproofing material designed to be used with V-Wrap FRP systems to provide up to four hours of fire protection. It is a cementitious-based, non-combustible, and non-flammable material.

V-Wrap FPS is compatible with structural concrete and can be used to increase the fire rating of existing structural concrete members with low concrete cover.

ADVANTAGES:

- UL listed product
- Provides up to 4-hour rating.
- High bond strength
- Provides fast and efficient application

APPLICATION INFORMATION

SURFACE PREPARATION:

Concrete surfaces should be clean, sound, and exhibit an open pore structure. Remove any excess dust, debris, oils, or other bond inhibiting materials prior to application.

MIXING:

A mix ratio of 1 part V-Wrap FPS to 1.2 – 1.4 parts clean water should be used. Water amount should be 4.3 – 5 gallons (16 – 19 liters) per bag. Pour half of the water into a suitable mixing container. Add 1 bag (30 lbs) V-Wrap FPS dry mix followed by the remaining amount of water. Using an egg beater type mix paddle, mix for 3 to 6 minutes until uniformly blended. Apply immediately.

APPLICATION:

V-Wrap FPS may be applied by spray method or trowel. Apply V-Wrap FPS onto a 10-20 mil coat of V-Wrap Thickened Epoxy. Allow thickened epoxy to reach initial cure (4 hours) prior to application. Thickened epoxy should be soft to touch when application begins. It may be built-up in one or more lifts to achieve the minimum specified

thickness. Apply no more than ¾ in. thickness in one lift. If multiple lifts are required, subsequent lifts are applied 2 - 4 hours after the previous lift, or when the surface has achieved proper strength to support additional lifts. Application thickness should be measured continuously during spraying to ensure proper thickness.

COVERAGE:

One bag yields approximately 10 ft² (0.93 m²) at 0.75 inch (19.1 mm) thick. Contact STRUCTURAL TECHNOLOGIES for minimum required thickness. V-Wrap FPS coverage must extend a minimum distance of 6 in. beyond all V-Wrap FRP. Applicator should allow for waste and overspray.

WORKING TIME LIMITATIONS:

V-Wrap FPS has a working time of approximately 20 minutes at normal ambient temperatures between 60°F and 80°F (16°C to 27°C). If material begins to harden, it should be discarded.

CLEAN UP:

Clean all tools and equipment with water immediately after use. Dry material may be swept or vacuumed up. Dispose of in accordance with local, state, and federal regulations.

HANDLING PROPERTIES:

Color: Gray dry mix
Mixed: Gray

SHELF LIFE:

Stored at 70°F (21°C): 36 months.

PACKAGING:

One 30 lb. (13.6 kg) bag of V-Wrap FPS dry powder.

STORAGE:

Store units in a dry area above freezing temperatures, 32°F (0°C). Bags should be kept off the ground and protected from moisture. Plastic tarping is recommended.

SAFETY:

Avoid breathing dust and airborne particles. Avoid contact with eyes and skin. Use of an approved respirator is required. Safety glasses or a face shield are required to prevent eye contact. Rubber gloves, rubber boots, and protective suits are recommended for handling and application of this material. Wet fireproofing material is very slippery, use caution and anti-slip surfaces.

FIRST AID:

In case of skin contact, wash thoroughly with soap and water. For eye contact, flush immediately with plenty of clear water; contact physician if necessary. If inhaled, remove individual to area with fresh air.

HANDLING:

Respiratory: Use of respiratory protection suitable for nuisance dust is required.

Eyes: Use safety goggles or glasses which provide adequate eye protection.

Skin Contact: Use of gloves and adequate clothing to avoid skin irritation is required.

STRUCTURAL TECHNOLOGIES, LLC warrants its products to be free from manufacturing defects and to meet STRUCTURAL TECHNOLOGIES' current published properties when applied in accordance with STRUCTURAL TECHNOLOGIES' directions and tested in accordance with ASTM and STRUCTURAL TECHNOLOGIES Standards. User determines suitability of product for use and assumes all risks. Buyer's sole remedy shall be limited to the purchase price or replacement of product and excludes labor or the cost of labor. Any claim for breach of this warranty must be brought within one year of the date of purchase.

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