BIO FIRESHIELD™ INDUSTRIAL CABLE COATING FEATURE

- **WATER-BASED**
- **LOW ODOR**
- **ASBESTOS FREE**
- **FLEXIBLE AND DURABLE**
- **WATER AND WEATHER RESISTANT**
- **UV RESISTANT**
- **NO AMPACITY REDUCTION (NO CABLE DERATING)**
- **FM APPROVED**
- **TESTED ACCORDING TO THE STANDARDS: IEEE 383 APPROVED**
- **COLOR WHITE / GRAY**

SETTING THE STANDARDS BY WHICH OTHERS ARE JUDGED

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PRODUCT DATA SHEET

Bio Fireshield™ Industrial Cable Coating

1. Product Description

Bio Fireshield™ Industrial Cable Coating is a water-based, ready-to-use, heavy duty spray coating which is Factory Mutual (FM) approved and is designed to prevent vertical or horizontal propagation of fire along grouped or single communication or power cables. Bio Fireshield™ Industrial Cable Coating has been specifically designed for use in Industrial and Utility applications. Bio Fireshield™ Industrial Cable Coating is suitable for interior or exterior applications and is both UV and weather resistant. (Bio Fireshield™ Industrial Cable Coating is also virtually unaffected by radiation exposure.) The application of an additional protective coating is not necessary.

Bio Fireshield™ Industrial Cable Coating is halogen free and does not contain solvents, plasticizers, asbestos, or other hazardous inorganic fibers. Bio Fireshield™ Industrial Cable Coating has low odor, is compatible with and adheres to typical cable jacketing materials. Our formulation has been used by major utilities and corporations for over 25 years and is considered by some to be the industry standard.

Bio Fireshield™ Industrial Cable Coating Features

*Water-based
*Low Odor
*Asbestos Free
*Flexible and Durable
*Water and Weather Resistant
*UV Resistant
*No Ampacity Reduction (No Cable Derating)

2. Material Properties

Color	Gray
Dry coverage	18.5 ft^2/gal (0.45m^2/L)*
Flash Point	>212°F/100°C
Ampacity reduction	None**
Flame Spread (ASTM E84)	15
Smoke Developed (ASTM E84)	35
Vapor permeability (ASTM E96)	9.32 Perms

*Based on 0.0635 in. (63 mils or 1.6mm) dry coating thickness
**Based on 0.125 in. (3.2mm) dry coating thickness

3. Applications

Bio Fireshield™ Industrial Cable Coating can be used on both interior and exterior applications for both vertical and horizontal cable runs. Bio Fireshield™ Industrial Cable Coating can be used on both single and grouped electrical or communication cables. Bio Fireshield™ Industrial Cable Coating can be used on cables within cable trays or those outside of cable trays. Bio Fireshield™ Industrial Cable Coating is typically applied as a continuous coating or if specified, at intervals of 10 to 20 feet (3 to 6 m) to serve as 'firebreaks' within the cable run, for example: 3 feet (1 m) coated lengths for horizontal trays or 5 feet (1.5m) coated lengths for vertical trays. (or as specified by the project)

4. Installation Data

Bio Fireshield™ Industrial Cable Coating is conductive until dry. Do not apply to energized electrical conductors. Always apply under the supervision of project electrician or project safety manager. Before the application of the coating, the entire cable run must be inspected by qualified electrical personnel in order to identify areas of the cables where there is cracked or damaged insulation jacketing. These damaged areas must be appropriately repaired and approved before the application of the coating in order to maintain the integrity of the cables' insulation jacket.

Bio Fireshield™ Industrial Cable Coating is supplied in 5 gal. (19L) pails. It is specifically designed for application by airless sprayer. However, small or touch-up areas may be applied by brush or trowel. Bio Fireshield™ Industrial Cable Coating should be at room temperature for best application. Surface and air temperatures should be between 40°F to 90°F (4°C to 32°C) for storage and application. All surfaces which are not intended to be coated should be protected. Surfaces to be coated must be clean, dry and free of any loose dirt, oil or any other contaminants. DO NOT ADD WATER or any thinning component.

Apply Bio Fireshield™ Industrial Cable Coating in thin layers. If applying more than one coat, allow 2 to 4 hours drying time between coats. Required thickness should be accomplished with a single application, however, to ensure complete coverage, apply in 2 coats. Under normal drying conditions, Bio Fireshield™ Industrial Cable Coating dries to the touch in 2 hours and should be completely dry in about 48 hours. Actual drying time will vary according to thickness and environmental conditions. Allow product to dry a minimum of 72 hours before exposure to rain or to other forms of moisture. Apply coating to the specified thickness in order to obtain the desired rating. For single cables, coat entire surface of the cable. For grouped cables, coat all exposed surfaces of the cables. If cables are within a tray, the tray may also receive the coating in order to insure ALL exposed surfaces of the cables are coated.

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Airless Spray Application:

Care should be exercised in selecting the proper equipment. All wetted parts of the spray pump should be specified to resist abrasion. The use of high-density polyethylene seals in place of the standard PTFE seals will greatly extend the service life of the pump and reduce downtime. The following equipment or similar in quality and specifications may be used:
GRACO Mark V
TITAN Impact Series 740
(Hose length should be limited to maximum 50 ft or 15M. All filters should be removed. Select gun and tip size to achieve desired spray pattern.)

Equipment Preparation:

Remove inlet filter strainer, outlet filter and filter support. Before running the Bio Fireshield™ Industrial Cable Coating through the sprayer, run a pail of clear, clean water through the pump, hose and sprayer in order to 'lubricate' the equipment. Set sprayer to the desired pressure and use the appropriate Tip orifice to match the needed spray pattern. Hose should be a maximum 50 ft x .375 in. plus 6 ft x .25 in. whip (15.2M x 9.5mm plus 1.8M x 6.4mm whip). Clean all equipment with clean water immediately after use. Any unused Bio Fireshield™ Industrial Cable Coating should be resealed tightly in original container.

Estimating:

One gallon of Bio Fireshield™ Industrial Cable Coating will coat approximately 18.5 ft^2 (0.4 m^2/L) at the recommended dry film thickness of 63 mils/0.063 in. (1.6mm). The wet film thickness required to yield the recommended dry film thickness is 85-90 mils/0.085-0.09 in. (2.1-2.3mm). When estimating, for application by airless sprayer, allow for material waste due to overspray. All exposed cable surfaces must be coated.

Example Calculation:

24 in. (610mm) tray width, 4 in. (102mm) tray height, 200 ft (61M) tray length
A= [2 ÷ 0.3] x 2 x 200ft. = 920ft^2
(A= [0.610 ÷ 0.102] x 2 x 61M = 86.864 m^2)
Coverage: 18.5 ft^2/gal (0.45 m^2/L) at 63 mils (1.6mm)
Quantity required = 920 ÷ 18.5 = 50 gal (189 L)
Allow 20% waste due to overspray
Total requirement = 60 gal (227 L)

Based on: A= [W+H} x 2 L where
A = Area to be coated (ft^2 or m^2)
W = Cable tray width
H = Cable tray height
L = Cable tray length
(Note: Linear dimensions in all feet or all meters.)

5. Testing Data

Bio Fireshield™ Cable Coating has been Bio Fireshield™ Industrial Cable Coating has been tested to and has met the following International Test Standards:
IEEE-1202
Factory Mutual Approved (FM)

6. Storage & Handling

Bio Fireshield™ Industrial Cable Coating should be stored between 40°F (4°C) and 90°F (32°C) under protective cover in their original unopened containers. When properly stored in unopened containers, Bio Fireshield™ Industrial Cable Coating has a minimum 1 year shelf life subject to re-inspection. PROTECT FROM FREEZING.

7. Availability

Bio Fireshield™ Industrial Cable Coating is available in 5 gallon (18.9 L) pails.

8. Limitations

Bio Fireshield™ Industrial Cable Coating is not designed to be used in areas under continuous immersion. Care should be taken to insure that application is made within appropriate application temperatures and that the in service temperature is not exceeded. PROTECT FROM FREEZING

For additional information, refer to Material Safety Data Sheet.

9. LIMITED WARRANTY

RectorSeal makes the Limited Express Warranty that when the instructions for storage and handling of our products are followed we warrant our products to be free from defects. THIS LIMITED EXPRESS WARRANTY IS EXPRESSLY IN LIEU OF ANY OTHER EXPRESS OR IMPLIED WARRANTIES, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, AND OF ANY OTHER OBLIGATION ON THE PART OF RECTORSEAL. The sole remedy for breach of the Limited Express Warranty shall be the refund of the purchase price. All other liability is negated and disclaimed, and RectorSeal shall not be liable for incidental or consequential damages.

Suggestions and recommendations covering the use of our products are based on our past experience and laboratory findings. However, as we have no control as to the methods and conditions of application, we only assume responsibility for the uniformity of our products within manufacturing tolerances.

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