



## Application/Technical Data

### Application to cables

#### Surface preparation

A thorough cleaning of cables is not required. However, oil or grease should be removed with dry rags (no solvent). Using a broom or vacuum cleaner to remove heavy layers of dust is sufficient.

#### Spray

Application by spray is done in the conventional way by spraying crosswise. The white of the coating should well cover the colour of the cable jacket. The wet thickness of the coating must be at least 2.5 mm on all exposed sides. For getting at hard-to-get-at places, use extension nozzle. Where cables are close to a wall, stuff mineral wool between cables and wall and coat over. Generally the required thickness may be applied in one coat. However, where new vertical cables are to be coated, it is recommended to apply first a thin "fog coat" and let it dry, then apply final coat.

#### Hand

Large diameter single cables or bundles may be coated by hand. Again, a thin coat should be allowed to dry before the rest is applied, using both hands like an extruder. To achieve a smooth, even finish, use a wet brush.

#### Recommended coating thickness on cables:

Wet approx. 98 mils (2.5 mm), resulting in approx. 63 mils (1.6 mm) dry coating

#### Coverage at recommended thickness:

Approx. 105 sq.ft area /6.5 gal. For grouped cables or cables in trays allow 30% more material considering the curved surfaces.

### Application to mineral wool panels

This may be done by spray or trowel. If the latter method is preferred, a large steel trowel, such as used for levelling concrete surfaces, should be used.

There are 2 types of FIREFREE® Cable coating available: sprayable and brushable.

#### Thinning

FIREFREE® Cable coating has a water base, but thinning for both types of FIREFREE Cable coating should not be necessary.

#### Spray equipment

FIREFREE® Cable coating may be applied with a great variety of spray equipment designed for application of high viscosity materials. Good results have been obtained with the following:

#### Airless spray equipment

Graco Smart Mark V

Pressure at gun: 0 – 200 bar

Spray gun orifice: 0.9 – 1.0 mm (preferably reversible tip)

#### Conventional spray equipment (with pressure pot)

Binks, De Vilbiss Mastic, Wally or SATA

Material pressure: 4 – 5 bar

Pressure at gun: 4 bar

Spray gun orifice: minimum 3 mm diameter

Material hose: minimum 3/4" diameter

Air supply: compressor capable of delivering 200 l/min. (tank vol. at least 40 l) 6 bar

#### Please note

Air supply, air pressure, diameter of material hose as well as minimum orifice opening must be adhered to as recommended.

All filters with the equipment must be removed prior to operating with FIREFREE® Cable coating.

### Technical Data

#### Composition:

FIREFREE® Cable coating consists of water-based thermoplastic resins, inorganic incombustible fillers, pigments and various flame retardant chemicals. FIREFREE® Cable coating is free of asbestos and solvents.

Color: Off-white

Viscosity: Approx. 40,000 mPas

Density: Approx. 1.43 g/cm<sup>3</sup>

pH-value: Approx. 8.0

Solids: Approx. 70%

Toxicity: Non-toxic

Storage temperature: 41 – 86F, Must be protected from frost!

Shelf-life: In closed original containers at room temperature at least one year

Packaging: Plastic drums of 6.5 gal (35 kg) and 1.3 gal (7 kg).

Thinning i.e. cleaning of equipment: Water

#### Drying time:

Depending on temperature and humidity  
To the touch: within 24 hours (68F/65% RH)  
Cured: approx. 3 days (68F/65% RH)

#### Flexibility:

PVC cables of 1/2" diameter coated with FIREFREE® Cable coating may be bent to a 1.5" radius without cracking.

#### Thermal conductivity:

$\lambda = 0.69 \text{ W m}^{-1} \cdot \text{K}^{-1}$  at 25C

#### Specific resistance:

$\rho_p = 1.06 \cdot 10^9 \text{ (Ohm} \cdot \text{cm)}$   
at 23C / 50% RH

$\rho_p = 4.10 \cdot 10^5 \text{ (Ohm} \cdot \text{cm)}$   
at 23C / 83% RH

