

# **KBS COATING – SPECIFICATION**

## **GENERAL**

Supply certified, non hazardous, non toxic, KBS Coating to be applied strictly in accordance with the manufacturers application instructions in full accordance with FM3971 (Factory Mutual approval) or IEC60331-11 (International Electrotechnical Commission).

It is recommended that the installed materials be inspected by a third party Inspector before practical completion to confirm materials have been installed to the manufacturer's specifications.

KBS Coating is to be used for the fire protection of single or grouped cables to prevent flame propagation on the cable surface (FM3971) or Fire Rate existing Cable (IEC60331-11). This will delay short-circuiting when exposed to an internal or external fire source around the cables whether in grouped or tray arrangement, horizontally or vertically.

When required, appropriate performance must be furnished by test reports such as:

- FM3971                      STOP SPREAD OF FLAME
- IEC60331-11              FIRE RATE CABLE 52min
- BS476 Part 7              FLAME SPREAD
- Allianz                      NO DE-RATING OF CABLE
- ABS                          MARITIME APPROVAL
- TUV Nord                  MARITIME APPROVAL
- DIN4102 Part 1            STOP SPREAD OF FLAME
- ASTM D2863                LOI – DETERMINATION

## **PREPARATION**

The cable surface must be free of dirt and oils. Cleaning of cables should be carried out with a dry cloth. It is not recommended that solvents or other liquids be used to clean the cables prior to coating.

## **KBS COATING**

The KBS Coating system is an FM and IEC approved water based, ablative coating especially developed for the fire protection of grouped or bundled electrical cables. The main function of KBS Coating is to prevent flame propagation along vertical and horizontal cableways isolating the fire to its source. The current carrying capacity of the cable will not be affected by KBS Coating (ampacity derating). KBS Coating is dense and thermally conductive during normal operating temperatures. Its thermal conductivity and performs better than PVC. KBS Coating increases the surface area of the cable allowing more heat to dissipate (Complete test data available from FM and Allianz).

KBS Coating will not be affected after prolonged exposure to high humidity, moisture, tap or rain water, UV radiation in an outdoor environment, which is to be verified by a 25 Year Outdoor Weather Test, in which no change or deterioration or LOI clause of z95 is shown. KBS Coating is to last the life expectancy of the cable.

KBS Coating is to be resistant to gasoline, diesel fuel, fuel oils transformer and motor oils. KBS Coating is to be also resistant to at least 80 different solvents, acids, lyes, and most other common chemicals in concentrated or diluted form (KBS Compatibility with Various Chemicals).

KBS Coating is supplied in a 35kg (77lbs) pail and 7kg (15.5lbs) pail. KBS Coating is free of asbestos and solvents. KBS Coating is touch dry within 24 hours and fully cured in 3 days.

#### **APPLICATION & TOOL CLEANING**

Under FM3971 (Factory Mutual) and the manufacturers guideline, KBS Coating must be applied to a DFT (Dry Film Thickness) of 1.6mm. WFT (Wet Film Thickness) of 2.5mm. The proper thickness of 1.6mm DFT is reached with a two coat application.

KBS Coating can be applied by either brush or spray.

Please refer to the KBS Specifier's Handbook, KBS Application Manual or the KBS CD for application methods and equipment.

Clean tools in fresh water before the coating cures.