



Flamemastic 77 System

Technical Bulletin
June 2007

PRODUCT DESCRIPTION

Flamemastic 77 System Coatings, are compounded of water based thermoplastic resins flame-retardant chemicals and inorganic, incombustible fibers. These coatings contain no asbestos. One or more of the following patents protect the Flamemastic 77. United States - 3642531, 3928210; Great Britain - 1297710; West Germany - 2039969; or other patents pending.

Factory Mutual Research Corporation has tested and approved Flamemastic-77 for use on grouped electrical cables.

FIRE PROTECTION

Flamemastic 77 protects electrical cables from fire and prevents propagation of fire on grouped electrical cables. (Fire Protection against shorting out varies in time with fire intensity, cable size, type of cable insulation and thickness of coating. See page 4 of Loss Prevention Economics for typical examples.) The coating has shown exceptional fire protection in independent tests ranging from 3 hour ASTM E119 Wall Penetration Test, where the coating was used in conjunction with insulation board, to horizontal, stacked tray tests on several types of cables under fire loads of 140,000 BTU/hr.

When grouped electrical cables are covered with the recommended thickness of Flamemastic 77, the cable jacket and insulation no longer are a source of fuel for a fire.

EFFECT ON AMPACITY

Reduction of current carrying capacity varies with the size of the cable and the thickness of the coating. At the recommended coating thickness there is no effect on the ampacity of the coated cables.

PERMANENCE

Flamemastic 77 continues the formulated from proven flame retardants material as well as inert non-asbestos fillers that have proven their permanence and effectiveness for over thirty years.

EFFECT OF RADIATION

Flamemastic 77 coated cables were subjected to 3×10^8 rad of gamma radiation at a rate of 5×10^5 rad per hour for 600 hours. This exposure had no significant effect on the coating or its fire protective capability.

**Supersedes June 2005
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Flamemastic 77 System

| | Flamemastic 77 Sprayable | Flamemastic 77 Mastic |
|------------------------|--------------------------|-----------------------|
| Weight per Gallon | 12.4 lb/per gallon | 12 lb/per gallon |
| Hardness of dried film | 85 shore A | 85 shore A |
| % Solids | 69% | 69% |
| Consistency | Thixotropic | Heavy Mastic |

SPECIAL NOTES

Protect Flamemastic-77 from freezing during shipment and storage. Do not store at temperatures below 35°F or above 90°F.

Flamemastic 77, like most water base coatings, can conduct electricity until it thoroughly dries. Exercise extreme caution when applying the material to energized cables or equipment. Never apply Flamemastic without supervision of plant safety personnel. Hazards include, but are not limited to, open buss ducts, cable potheads, exposed conductors, faulty cable insulation and transformer bushings.



The information presented herein is based on data believed to be reliable. The Flamemaster Corporation makes specific recommendations for the use and application of Flamemastic 77, which are important factors in its performance. Since the Flamemaster Corporation has no control over the use and application it cannot insure that your results will be the same as those described.

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