

**A8.1****Research of property of low-smoke halogen-free flame-retardant power cable**

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Abstract : property of low-smoke halogen-free flame-retardant power cable will be discussed here. After analyzing of the test result of the sample, and then the proposal of designing and materials for LSHF cable flame-retardant power cable will be worked out.

Items: HALOGEN-FREE FLAME-RETARDANT
POWER CABLE CHARACTARISTIC OF FIRE

FOREWORD

Peoples have come to realize the importance of the flame-retardant of the cable from the fire in 1970's. The international research institute began to study the mechanism of flame-retardant deeply. They produced a kind of cable that possesses the property of flame-retardant at a certain degree, and formulated the test methods and test standard about the flame-retardant of various kind of cable. The cable that produced then can give out a lot of smoke and poisonous corrosive gas while being burning because of the halogen, that obstructed the fire fighting and reliving and corroded the apparatus, what is called second-damage. In view of it, requirement of the safety and reliability of the cable that used in the facilities is lofty more and more. It is essential for the manufacturer of cable to develop a new kind of LSHF flame-retardant cable. The LSHF flame-retardant cable is used widely in the power station, subway, public communication system, telecom system, hospital, skyscrapings etc.

The characteristic of flame of the LSFH flame-retardant power cable is mainly discussed and makes some suggestion according to the research.