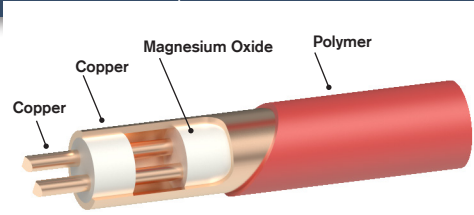
Remora Electrical

What Is MICC Cable?

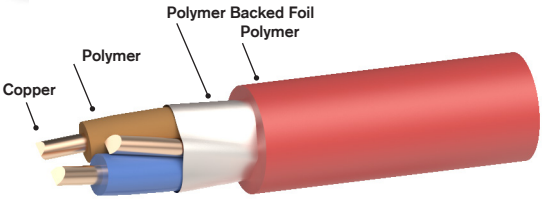
Fire RESISTANT Cable

In building construction, electrical cable sheathing is a potential source of fuel in the event of a fire. Soft-skin flame retardant cables consist of single or multi-stranded conductor cores (copper), individual core insulation (polymer) and an outer insulating sheath (polymer). This arrangement has a continuous operating temperature of 80°C. Because this arrangement contains polymers that easily burn, soft-skin cable manufacturers may use LSF (Low Smoke and Fume) or LSZH (Low Smoke Zero Halogen) fire retardant polymers to limit the spread of fire along the sheathing. Halogens (non-metallic elements) are added to the outer sheath such as; chlorine, bromine and fluorine. When exposed to a fire, these halogenated polymers will release halides which are extremely toxic. The outer and inner sheaths of soft skin polymer cables burn and contribute to a fire releasing toxic smoke which can itself ignite, often explosively. Further and crucially, in the event of a fire flame retardant cables offer little benefit with regard to maintaining circuit integrity.

- **Fire Resistant:** Mineral insulated cable can work at a continuous ambient temperatures of up to 250°C, up to three hours at 950°C in a fire situation and even up to 1083°C for shorter periods. It will neither burn nor support combustion.
- **Mechanical strength:** The outer copper sheath provides a protective barrier, providing extreme protection against mechanical stresses that would be fatal to conventional soft-skin cables.
- **Waterproof:** The protective barrier created by the outer copper sheath combined with ATEX approved fittings and terminations make an MICC connection completely impervious to ingress from water, oil and gases.
- **Ease of Use and Cost:** The total life cycle costs of MICC in a building with a typical 40-50 year design expectancy is considerably lower than XLPE steel wire armoured LSZH fire retardant cable, thus off-setting any additional initial expenditure.



MICC - The acronym MICC stands for Mineral Insulated Copper Cable. Mineral Insulated Copper Cable is an example of Fire Resistant cable; it neither release toxins, nor will burn. Unlike soft-skin polymeric cable, MICC utilises just two unique elements, copper and magnesium oxide. It consists of single or multiple conductors (copper), core insulation (highly compressed magnesium oxide) and an outer copper sheath (copper).



Approvals and Standards

Mineral insulated cables are designed to meet some of the most stringent real-world derived tests around the world. Our cables are installed in some of the worlds largest and most important buildings and recognised throughout the electrical industry as the best choice for fire survival. Our mineral cable approvals include:

- British fire performance standards BS En 50200 PH120 Enhanced demands 2 hours fire resistance at 850°C
- BS 5839-1 Enhanced to BS 8434-2
- BS 6387 category C, W & Z demands that cables perform safely for 3 hours at 950°C
- AS/NZS 3013

History

Originally patented by Swiss inventor Arnold Francois Borel in 1896 and produced commercially in France in 1932. Mineral insulated cable was installed on large marine vessels such as the SS Normadie, oil tankers and also historic buildings such as the Louvre museum. In 1937 patents were secured by British companies and UK production began shortly thereafter. Mineral cable was produced extensively during the Second World War with a focus on military applications. To date, mineral insulated cable has been continuously manufactured in the UK for over 80 years.

Remora Electrical is proud to uphold that long-standing tradition by continuing to supply a 100% UK manufactured product.