ERVITAL FIRE SAFE GOLD CABLE

FLAME RETARDANT CHARACTERISTIC / LOW SMOKE EMISSION / WITHOUT POISONED AND CORROSIVE GASES / CIRCUIT INTEGRITY 180 MINUTES / CIRCUIT INTEGRITY WITH SHOCK PH120 / ANNEX E / CWZ ACCORDING TO BS STANDARDS

CONSTRUCTION

Conductor

Plain annealed copper wire, solid class 1 or stranded class 2 according to EN 60228
(for 4 mm² is available both solid and stranded, for others are available only solid)

Insulation

Special, fire resistant silicone rubber type EI2 to BS EN 50363-1

2 CORES	Blue	Brown		
3 CORES	Brown	Black	Grey	
4 CORES	Blue	Brown	Black	Grey

Cabling

Insulated cores are stranded together

Overall Screen

Copolymer laminated aluminium tape with the metallic element in contact with the uninsulated circuit protective conductor
Uninsulated tinned copper protective conductor of the same section and class as the insulated conductors

Outer Sheath

LSZH thermoplastic material type LTS3 to BS 7655-6.1

Colour of Steath

Red White, Orange, Black

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ERVITAL
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FIRE RESISTANT CABLES

Golden Solutions For The Best Quality

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FIRE SAFE GOLD CABLE

Increasing population in the world, developing technologies and industrialization sourced general public use trade centers, high buildings, hotels, schools, hospitals, subways bring the risk of fire and pecuniary & non-pecuniary costs along with.

The first way of preventing and minimizing the loss of life and property costs, passes by eliminating or reducing facts that can cause fires. It shouldn't be forgotten that the golden rule of fire protection is preventing fire eruption rather than extinguishing it.

The reaction and resistance to fire characteristics of the materials which are used in cables in construction products and the one that is basic of electrical systems, came into prominence. Cables should keep operating at possible fire moment, providing continuity and minimizing the emission of harmful, poisonous gases which negatively affect human health as much as possible, producing the reaction and resistance to fire class with high-grade materials which become even more important for the safety of life and property. For this reason choosing the right cable is essential.

Ervital Fire Safe Gold Cable has been designed as user-friendly and high-performence cables which is fire resistant, halogen-free, flame reterdant, low smoke and certified by LPCB.

We are using the latest technology, materials and equipments to meet requirements of standards.

Ervital Fire Safe Gold Cables are used as a power and controls cables:

· Machine and equipment that are required to continue its function during a fire (emergency elevators, fire water pumps e.g.),
· Ventilation systems which are connected to fire alarm system,
· In emergency lighting at fire escape exits,
· Emergency power supplies,
· In places where human life and valuable materials and equipment need to be protected.

Typical applications are:

BS 5839-1 : Fire detection and fire alarm systems for buildings - Code of practice for design, installation, commissioning and maintenance of systems in non-domestic premises.
BS 5839-8 : Fire detection and fire alarm systems for buildings - Code of practice for the design, installation, commissioning and maintenance of voice alarm systems.
BS 5839-9 : Fire detection and fire alarm systems for buildings - Code of practice for the design, installation, commissioning and maintenance of emergency voice communication systems.
BS 5266-1 : Emergency lighting. Code of practice for the emergency lighting of premises.
BS 8519 : Selection and installation of fire-resistant power and control cable systems for life safety and fire-fighting applications.(Cat-1)

Ervital Fire Safe Gold Cables should be installed in accordance with last edition of BS7671 or any other approriate national regulations.
It is suitable for indoor and outdoor installation in suitably protecded environments and particularly appropriate for surface wiring, direct brial in plaster, tray.

Applicable Standards:
Ervital Fire Safe Gold Cables are designed according to BS 7629-1:2015 and is completely LPCB approved.
Approval to BS 7629-1 includes approval to BS 6387 Cat. CWZ, EN 60754-1 (EN 50267-2-1), EN 61034-2, EN 50200 Class PH30 & PH60 & PH120 & Annex E, EN/IEC 60332-3 Part 22 Cat.A and BS 5839-1 Clause 26.2d for these cables.
Designated by category according to their special fire resistance characteristics Category STANDARD 30 and Category STANDARD 60.
The BS 7629-1 standard does not cover cables with a voltage rating that exceeds 300/500V.

FIRE RESISTANT

BS 6387 Cat. CWZ:

Cat. C:
Cat. C subjects the cable under test to a flame via direct impingement corresponding to a temperature attack of 950 °C ±40 °C.

Cat. W:
Cat. W subjects the cable under test to a flame via direct impingement corresponding to a temperature attack of 650 °C ±40 °C with direct application of water simulating a sprinkler system.

Cat. Z:
Cat. Z subjects the cable under test to a flame via direct impingement corresponding to a temperature attack of 950 °C ±40 °C with indirect application of mechanical shock.

BS EN 50200 (Class PH30 – PH60 – PH120):
A single piece of cable is attached to a special fibre glass wall with cable at the minimum bending radius. It is burned with the min. test temperature 830 °C propane burner. The rated tension vaiues of the cable are applied on the conductors during the test. Every five minutes a mechanical shock of 25 kg is applied to the wall the cable is attached to. the tension values must be preserved during the test.

BS EN 50200 + Annex E:
In addition to the test conditions EN 50200-PH30, after 15 min and with the flame and shock still being applied, the water spray shall be started. The application of water shall continue until the end-point of the test.

FLAME RETARDANT

BS EN 60332-1-2:
A sample cable of 600 mm will be fixed vertically in a metal chamber with exposed front side. A propane gas burner will be mounted in order to obtain a 45° angle with axis of the sample cable. The test time is dependent on the cable diameter. If the sample does not burn, or if the flame extinguishes itself, the test shall be deemed as successful.

BS EN 60332-3-22 Cat. A:
The test samples are mounted on a steel ladder. The total number of test pieces in the test sample shall be that number required to provide a nominal total volume of non-metallic material of 7 l/m of test sample. The steel ladder is placed on the rear part of a test chamber having a with of 1 m, a depth of 2 m and a height of 4 m. The test chamber should be ventilated by an air vent. The test flame is applied on the sample cable for 40 min. The test is passed if the flames extinguish on their own and no part of the samples is damaged over a length of 2,5 m.

ACID GAS EMISSION

BS EN 60754-2:
This test indirectly allows measuring emission of corrosive gas by insulation and sheath compounds. It is possible to measure small quantities of halogens during measurement of the pH-value and the conductivity. In a 500-600 mm long furnace, at least 1g of insulation or sheath compound should be heated up to a temperature of 935 °C. Air flow will ensure that combustion gases pass through a bottle filled with purified water. The test is passed if the pH-values is lower than 4,3 and the electrical conductivity does not exceed 100 S/cm.

SMOKE DENSITY

BS EN 61034-2:
The volume of test chamber is 3x3x3 m^3. The measurement system consists of a light source (a standard 100W halogen lamp) and a selenium or silicon photo-electric cell, both installed at a height of 2,15 m. A rectangular tray will be filled with alcohol. A ventilator is used to ensure the distribution of smoke. The length of the test samples is 1m. The number of test samples depends on the outer diameter. The samples should be attached horizontally above the tray which is filled with alcohol. The ventilator is started and the alcohol is ignited. Light intensity is recorded by a plotter which is connected to the photocell. The test is passed if the level of light transmission does not exceed the values given in the following table during the test.