# **ERVITAL FIRE SAFE CABLE**





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



# CONSTRUCTION

Conductor		EN 60228 Class 1 (RE) & 2 (RM) Electrolytic Copper			
Insulation		EN 50363-1 El2 Cross-linked Ceramic Forming Polymer Compound			
	2 Cores	Brown	Blue	Brown	Brown
Colour Codde	3 Cores	Brown	Black	Grey	
	4 Cores	Blue	Brown	Black	Grey
Stranding	Cores shall be laid	aid up using the sequence of colours specified			
Wrapping	Pes Tape				
Screen	Al-Pes Tape + Tinr	inned Copper Drain Wire (min. 0,5 mm²)			
Sheath	EN 50290-2-27 HF	HFFR Compound			
Sheath Colour TECHNICAL CHA		olors: , RAL 9005 Black, RAL	.9010 White	F	
Operating Voltage		300/500 V			
Min. Bending Radius		6x Cable Ø			
TEST VOLTAGE					
Core / Core		2000 V			
Core / Screen		2000 V			
Temperature Range		<ul> <li>- 30 °C ~ +70 °C (Temp. for stationary condition)</li> <li>- 5 °C ~ +50 °C (Temp. for moving condition)</li> <li>+90 °C (Max.Permissible Operating Temperature at Conductor)</li> <li>Permissible short-circuit temperature 250 °C</li> </ul>			
FIRE PERFORMA	NCE TESTS				
Flame Retardant Test		EN 60332-1-2			
Flame Propagation Test		EN IEC 60332-3-24 Cat.C			
Smoke Density To	est	EN 61034-2			
enience Denienty in		EN 60754-2			
Test on Corrosive Combustion Gase		EN 60754-2			
Test on Corrosive Combustion Gase	es	EN 60754-2 EN 60754-1			
Test on Corrosive Combustion Gase	es it				
Test on Corrosive Combustion Gase Halogen Free Tes	es it Test (FE180) with	EN 60754-1			





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# **ERVITAL FIRE SAFE CABLE** FIRE RESISTANT CABLES

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*Fire Safe Solutions For The Best Quality* 



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Increasing population in the world, developing technologies and industrializations ourced general public use tradecenters, light bid idigs to tetal schools, s hospitals, subways bring the risk off free and pecuniary & non-pecuniary costs abong with h.

The first way of preventing and minimizing the bass of life and property costs gasses day etilinina big or reducing facts that can cause fifes shall be forgotten that the golden nule off fine protection is preventing fine exclusion rabberthare king is highly different the second se

The reaction and resistance to fine characteristics of the materials which are used in cattles in construction products and the conect has is classic of effective all systems, came into prominence. Cables should keep operating attpossible firemoment providing contributy addminimizizing the emission of haranful µI, poisonous gases which negatively acct human healthas much as possible, producing the reaction and esistance of free class with high grade materials which become even more important flor the safety of life and property. For this reason choosing the right cable is ease and al.

certified by LPCB.

We are using the lattest technology, matterials and equipments to meet requirements of standards.

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In emergency lighting, In fire detection, In fire alarm system circuits, In places where human life and valuable materials and equippreent needs ocheppobected.

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## 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 650 °C ±40 °C with direct temperature attack of 950 °C ±40 °C with indirect temperature attack of 950 °C ±40 °C.

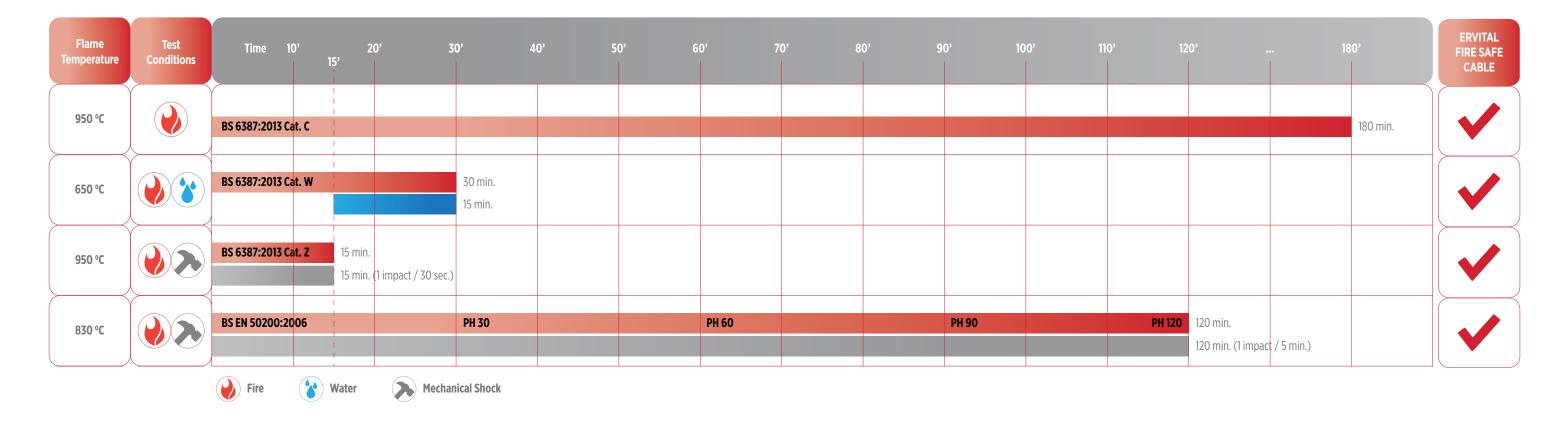




Cat. W:

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 values 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 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. C:

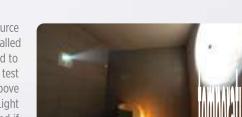
The test samples are mounted on a steel ladder. The total number of test pieces in the test sample shall be that number required to provide a nominal total volume of non-metallic material of 1,5 I/m of test sample. The steel ladder is placed on the rear part of a test chamber having a with of 1 m, a 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 20 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.

# 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 o 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.

# BS EN 61034-2:

The volume of test chamber is 3x3x3 m<sup>3</sup>. 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.



# Cat. Z:

Cat. W subjects the cable under test to a flame Cat. Z subjects the cable under test to a flame via direct impingement corresponding to a via direct impingement corresponding to a application of water simulating a sprinkler system. application of mechanical shock.





