

# FireTek™

PERFORMANCE UNDER FIRE CONDITIONS



TEKAB Co. Ltd.

## Performances



- Circuit integrity performance as to resistance to fire alone, to fire with water and to fire with mechanical shock in compliance to BS6387 categories CWZ

- Low Smoke and Fume to BS 7622

- Corrosive Gases to BS 6425 P1

- Flame propagation to BS 4066 P1 & P3

- Flame test to IEC331

- Halogen free.



## Applications

- Alarm systems

- Emergency lighting

- Building management systems

- Public address systems

- Shopping centres

- Hospitals

- Airports

- Oil and gas fields

- Marine

- Education centres

- Public entertainment centres





# FireTek™

**FireTek™** Cables for emergency lighting and fire alarm system.

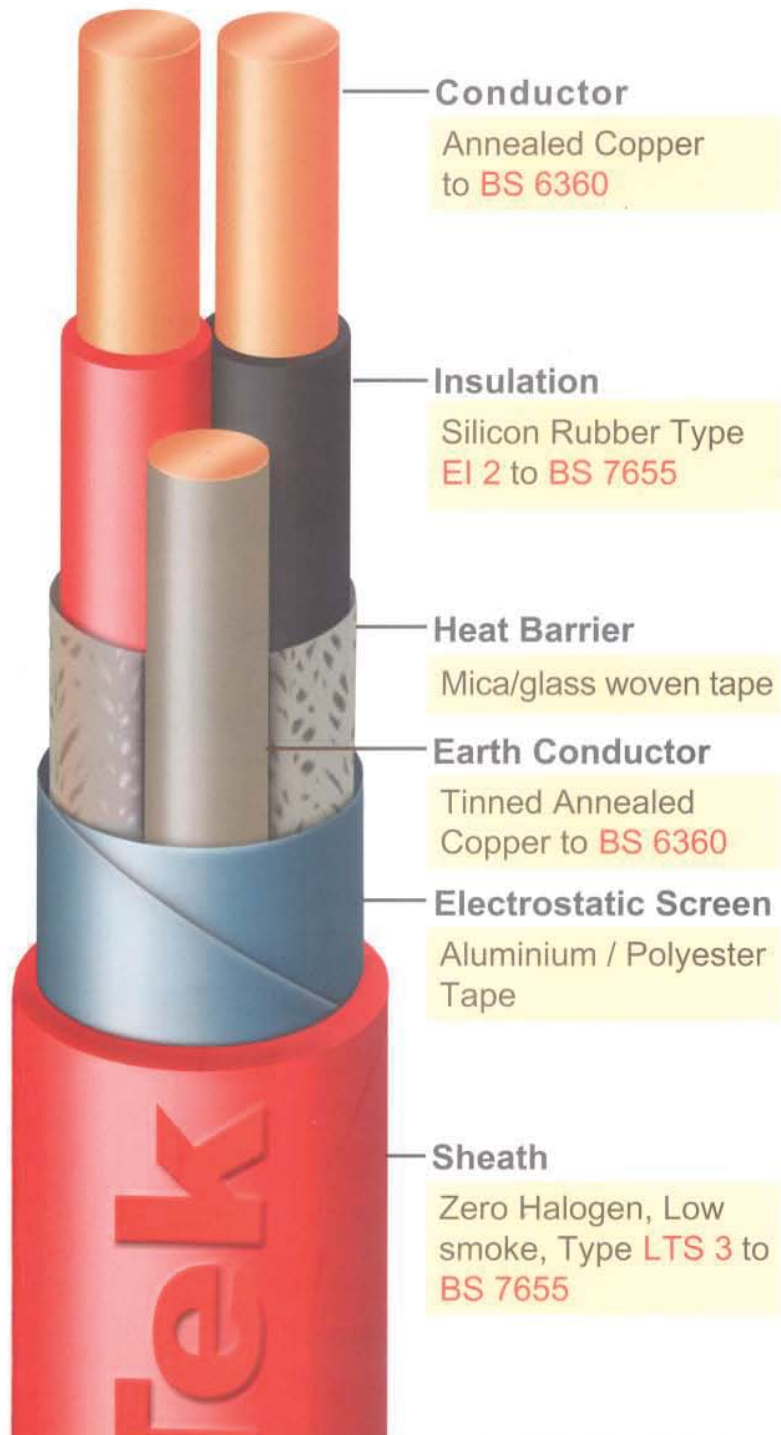
Maintain circuit integrity under fire condition, meet categories  
**CWZ to BS 6387**

Fire resistant, Flame  
retardant complies  
with **IEC 332P1**

Low smoke emission to  
**BS 7622**

Corrosive & acid gas  
emission evolved during  
combustion,  
meets **BS 6425P1**

## Construction to BS 7629



### Core Identification

**2 Core**, Red, Black

**3 Core**, Red, Yellow, Blue

**4 Wire**, Black, Red, Yellow, Blue

**Multicore**, White with Printed numbers

**Sheath**: Red White, Orange, Black

## FireTek - Physical Characteristics

Numbers of cores	Cross-sectional area	Conductor construction	Insulation thickness	Size of earth wire	Overall diameter (approx)	Net weight (approx)
nr	mm <sup>2</sup>	nr/mm	mm	nr/mm	mm	kg/km
2	1.0	1/1.13	0.6	1/1.13	8.0	75
	1.5	1/1.38	0.7	1/1.38	8.5	100
	2.5	1/1.77	0.8	1/1.77	10.5	140
	4.0	7/0.85	0.8	7/0.85	12.5	210
3	1.0	1/1.13	0.6	1/1.13	8.0	90
	1.5	1/1.38	0.7	1/1.38	9.5	120
	2.5	1/1.77	0.8	1/1.77	12.0	180
	4.0	7/0.85	0.8	7/0.85	13.5	260
4	1.0	1/1.13	0.6	1/1.13	9.0	110
	1.5	1/1.38	0.7	1/1.38	10.5	150
	2.5	1/1.77	0.8	1/1.77	13.0	220
	4.0	7/0.85	0.8	7/0.85	15.0	320
7	1.0	1/1.13	0.6	1/1.13	11.0	160
	1.5	1/1.38	0.7	1/1.38	12.5	220
	2.5	1/1.77	0.8	1/1.77	15.0	330
12	1.5	1/1.38	0.7	1/1.38	16.0	350
	2.5	1/1.77	0.8	1/1.77	20.0	540
19	1.5	1/1.38	0.7	1/1.38	19.0	510
	2.5	1/1.77	0.8	1/1.77	24.0	780

Available also in class 2 or 5 conductors and multipair

## APPROVALS

LPC Test report TE91835 as to compliance to BS 7629 to categories CWZ.

Forensic science laboratory, U.A.E.

Ministry of interior report No: 2297/98



## QUALITY ASSURANCE

Quality System Certificate  
No. 97 787 ISO 9000:1994  
Cert./U.A.E./003/1997 EN ISO 9001:1994







## Electrical characteristics

voltage rating	300/500 V r.m.s.			
continuous operating temperature	-30°C to +90°C			
short circuit temperature	250°C			
dielectric test, core/core & core/screen	2000V a.c.			
cross-section, mm <sup>2</sup>	1	1.5	2.5	4
conductor resistance at 20° c, Ω/km	18.1	12.1	7.41	4.61
Insulation resistance at 20°C, MΩ.km	350	300	300	250
capacitance, pF/m				
core/core	100	110	130	160
core/screen	170	190	220	270

## Current rating & voltage drop

conductor cross-sectional area	clipped direct				in cable tray			
	one twin cable		one three or four core cable		one twin cable		one three or four core cable	
	current rating	voltage drop	current rating	voltage drop	current rating	voltage drop	current rating	voltage drop
mm <sup>2</sup>	A	mV/A/m	A	mV/A/m	A	mV/A/m	A	mV/A/m
1.0	18	45	16	40	17	45	15	40
1.5	24	30	20	26	22	30	20	26
2.5	32	19	30	16	30	19	26	16
4	44	12	40	10	40	12	35	10

Ambient 30°C, conductor operating temperature 85°C

## Rating factors

### For ambient temperature

temp., °C	35	40	45	50	55	60	65	70
factor	0,95	0,91	0,85	0,8	0,74	0,67	0,6	0,52

### For grouping

cables, nr	2	3	4	5	6	10	14	18
factor	0.80	0.70	0.65	0.60	0.57	0.48	0.43	0.39