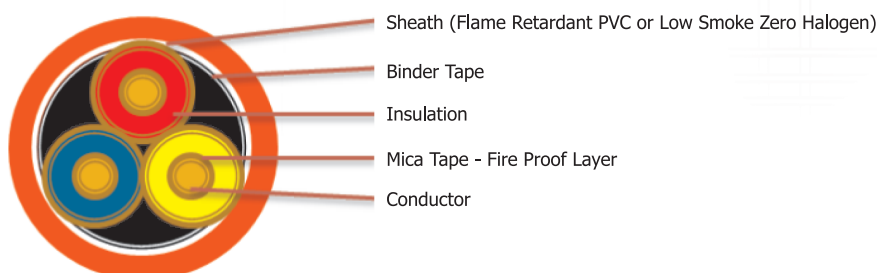




SOUTHERN CABLE

FIRE RESISTANT CABLES

Southern Cable offers Fire Resistant Cables for armoured and unarmoured designs, single and multicore constructions and the range of sheathing and screening options. The fire resistant cable is designed to maintain circuit integrity within fire condition for a safe evacuation. Smoke, heat, toxic fumes are factors of hindering safe evacuation. Thus, fire resistant and non-halogenated are designed to cater the hazards during fire condition. Typical construction of fire resistant cable is shown below.



The fire resistant cables are manufactured by Southern Cable complied to the specification of :-

- IEC 60331
- IEC 60332-1
- BS 6387

FIRE RESISTING CHARACTERISTIC IEC 60331

Step	Test Method	Performance Requirement
1st step	Flame of 750°C and test voltage of the rated voltage of the cable shall be applied for 3 hours	No failure of any 3A fuses occurs, nor any lamp extinguished and capable of withstanding the rated voltage of the cable.
2nd step	After flame extinguished and after 12 hours later, test voltage of the rated voltage of the cable shall be applied for 3 hours	

(BS 6387 Cat C, W & Z for overall diameter <20mm)
(BS 7846 Cat F2 for overall diameter >20mm)

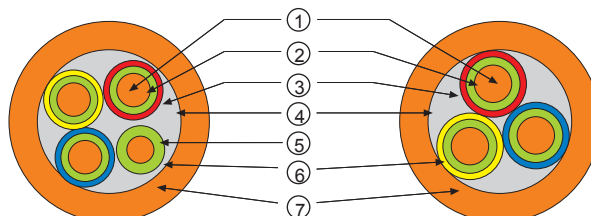
Step	Test Method	Performance Requirement
C	Flame of 950°C and test voltage of the rated voltage of the cable shall be applied for 3 hours	No failure of any 3A fuses occurs, nor any lamp extinguished and capable of withstanding the rated voltage of the cable.
W	Flame of 650°C and test voltage of the rated voltage of the cable shall be applied for 15 min. Water shall be sprayed on burnt area and flame shall be applied for a further 15 min	
Z, F2	Flame of 950°C and test voltage of the rated voltage of the cable shall be applied for 15 min. During this duration a shock producing device is applied for striking the wall on which the cable is mounted	

FIRE RESISTANT CABLE 300/500V

300/500V PE/PVC SHEATHED FIRE RESISTANCE CABLE

CONSTRUCTION

1. CONDUCTOR	: ANNEALED STRANDED COPPER WIRE
2. FIRE PROOF LAYER	: FIRE PROOF MICA TAPE
3. INSULATION	: POLYETHYLENE
4. FILLER	: SUITABLE FILLER
5. EARTH CONDUCTOR	: EARTH CONTINUITY CONDUCTOR (POLYETHYLENE INSULATED)
6. BINDER TAPE	: SUITABLE TAPE
7. SHEATH	: FIRE RETARDANT PVC



Core Identification

The cores shall be identified as follows:

2 cores + E : Red, Black + Green

3 cores + E : Red, Yellow, Blue + Green

4 cores + E : Red, Yellow, Blue, Black + Green



CONSTRUCTION DATA AND ELECTRICAL CHARACTERISTICS (WITH EARTH CONDUCTOR)

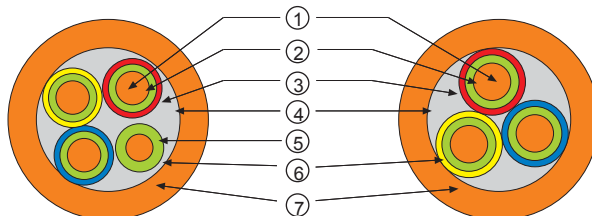
No. of Cores	Conductor			Earth Continuity Conductor	Nominal Thickness of Insulation	Nominal Thickness of Sheath	Approx. Overall Diameter	Test Voltage	Maximum Conductor Resistance at 20°C	Minimum Insulation Resistance at 20°C
	Nominal Sectional Area	No./Dia. of Wire	Approx. Outer Diameter							
	mm²		mm		mm	mm	mm		Ω/km	MΩ/km
2C+ E	1.5	7/0.53	1.59	7/0.53	0.55	0.5	8	2	13.6	2600
2C+ E	2.5	7/0.67	2.01	7/0.67	0.55	0.5	9	2	7.41	2100
3C+ E	1.5	7/0.53	1.59	7/0.53	0.55	0.5	9	2	13.6	2600
3C+ E	2.5	7/0.67	2.01	7/0.67	0.55	0.5	10	2	7.41	2100
4C+ E	1.5	7/0.53	1.59	7/0.53	0.55	0.5	10	2	13.6	2600
4C+ E	2.5	7/0.67	2.01	7/0.67	0.55	0.5	11	2	7.41	2100

FIRE RESISTANT CABLE 300/500V

300/500V PE/PVC SHEATHED FIRE RESISTANCE CABLE

CONSTRUCTION

1. CONDUCTOR : ANNEALED STRANDED COPPER WIRE
2. FIRE PROOF LAYER : FIRE PROOF MICA TAPE
3. INSULATION : POLYETHYLENE
4. FILLER : SUITABLE FILLER
5. EARTH CONDUCTOR : EARTH CONTINUITY CONDUCTOR (POLYETHYLENE INSULATED)
6. BINDER TAPE : SUITABLE TAPE
7. SHEATH : FIRE RETARDANT LOW SMOKE ZERO HALOGEN (ORANGE COLOUR)



Core Identification

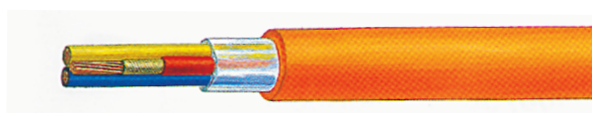
The cores shall be identified as follows:

1 core : Natural colour of XLPE

2 cores : Red, Black

3 cores : Red, Yellow, Blue

4 cores : Red, Yellow, Blue, Black



CONSTRUCTION DATA AND ELECTRICAL CHARACTERISTICS (WITHOUT EARTH CONDUCTOR)

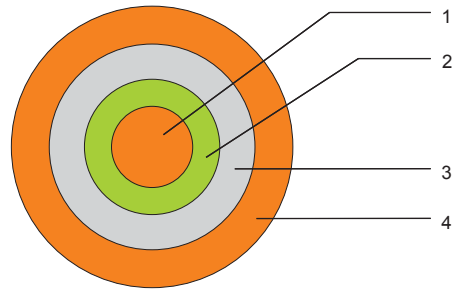
No. of Cores	Conductor			Nominal Thickness of Insulation	Nominal Thickness of Sheath	Approx. Overall Diameter	Test Voltage	Maximum Conductor Resistance at 20°C	Minimum Insulation Resistance at 20°C
	Nominal Sectional Area	No./Dia. of Wire	Approx. Outer Diameter						
	mm ²		mm						
1	1.0	7/0.44	1.32	0.55	0.5	4.0	2	21.2	2800
1	1.5	7/0.53	1.59	0.55	0.5	4.5	2	13.6	2600
1	2.5	7/0.67	2.01	0.55	0.5	5.0	2	7.41	2100
1	4	7/0.85	2.55	0.55	0.5	5.5	2	4.61	2200
2	1.0	7/0.44	1.32	0.55	0.5	7.0	2	21.2	2800
2	1.5	7/0.53	1.59	0.55	0.5	7.5	2	13.6	2600
2	2.5	7/0.67	2.01	0.55	0.5	8.5	2	7.41	2100
2	4	7/0.85	2.55	0.55	0.5	9.5	2	4.61	2200
3	1.0	7/0.44	1.32	0.55	0.5	7.0	2	21.2	2800
3	1.5	7/0.53	1.59	0.55	0.5	8.0	2	13.6	2600
3	2.5	7/0.67	2.01	0.55	0.5	9.0	2	7.41	2100
3	4	7/0.85	2.55	0.55	0.5	10.0	2	4.61	2200
4	1.0	7/0.44	1.32	0.55	0.5	8.0	2	21.2	2800
4	1.5	7/0.53	1.59	0.55	0.5	9.0	2	13.6	2600
4	2.5	7/0.67	2.01	0.55	0.5	10.0	2	7.41	2100
4	4	7/0.85	2.55	0.55	0.5	11.0	2	4.61	2200

FIRE RESISTANT CABLE 600/1000V

600/1000V XLPE/PVC SHEATHED FIRE RESISTANCE CABLE

CONSTRUCTION

1. CONDUCTOR : ANNEALED STRANDED COPPER WIRE OR COMPACT ROUND STRANDED
2. FIRE PROOF TAPE : FIRE PROOF MICA TAPE
3. INSULATION : CROSS-LINKED POLYETHYLENE
4. OUTER SHEATH : FIRE RETARDANT PVC (ORANGE COLOUR)



Core Identification

The core shall be identified as follows:

1 core : Natural colour of XLPE compound

CONSTRUCTION AND ELECTRICAL DATA - 600/1000V XLPE/PVC FIRE RESISTANCE CABLE

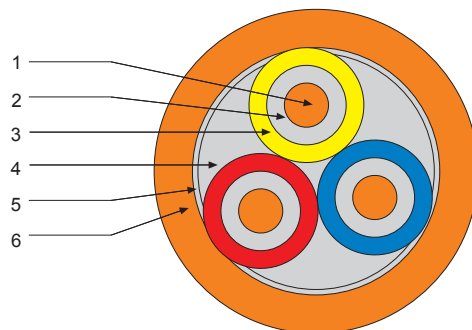
No. of Cores	Conductor			Nominal Thickness of Insulation	Nominal Thickness of Sheath	Approx. Overall Diameter	Test Voltage	Maximum Conductor Resistance at 20°C	Minimum Insulation Resistance at 20°C
	Nominal Sectional Area	No./Dia. of Wire	Approx. Outer Diameter						
	mm²	No./mm	mm						
1	1.5	7/0.53	1.59	0.7	1.4	7	3.5	12.1	2200
1	2.5	7/0.67	2.01	0.7	1.4	7	3.5	7.41	2100
1	4	7/0.85	2.55	0.7	1.4	8	3.5	4.61	1800
1	6	7/1.04	3.12	0.7	1.4	8	3.5	3.08	1500
1	10	7/1.35	4.05	0.7	1.4	10	3.5	1.83	1200
1	16	Min: 6 wire	4.7	0.7	1.4	10	3.5	1.15	1100
1	25	Min: 6 wire	5.9	0.9	1.4	12	3.5	0.727	1100
1	35	Min: 6 wire	7.0	0.9	1.4	13	3.5	0.524	1000
1	50	Min: 6 wire	8.0	1.0	1.4	14	3.5	0.387	900
1	70	Min: 12 wire	9.7	1.1	1.4	16	3.5	0.268	900
1	95	Min: 15 wire	11.4	1.1	1.5	18	3.5	0.193	800
1	120	Min: 18 wire	12.8	1.2	1.5	20	3.5	0.153	800
1	150	Min: 18 wire	14.3	1.4	1.6	22	3.5	0.124	800
1	185	Min: 30 wire	15.8	1.6	1.6	24	3.5	0.0991	800
1	240	Min: 34 wire	18.3	1.7	1.7	27	3.5	0.0754	700
1	300	Min: 34 wire	20.5	1.8	1.8	30	3.5	0.0601	700
1	400	Min: 53 wire	23.3	2.0	1.9	33	3.5	0.0470	700
1	500	Min: 53 wire	26.4	2.2	2.0	37	3.5	0.0366	700
1	630	Min: 53 wire	32.76	2.4	2.2	42	3.5	0.0283	600
1	800	Min: 53 wire	37.05	2.6	2.3	49	3.5	0.0221	600
1	1000	Min: 53 wire	41.6	2.8	2.4	54	3.5	0.0176	600

FIRE RESISTANT CABLE 600/1000V

600/1000V XLPE/PVC SHEATHED FIRE RESISTANCE CABLE

CONSTRUCTION

1. CONDUCTOR : ANNEALED STRANDED COPPER WIRE OR COMPACT ROUND STRANDED
2. FIRE PROOF TAPE : FIRE PROOF MICA TAPE
3. INSULATION : CROSS-LINKED POLYETHYLENE
4. FILLER : SUITABLE FILLER
5. BINDER TAPE : SUITABLE TABLE
6. OUTER SHEATH : FIRE RETARDANT PVC



Core Identification

The core shall be identified as follows:

2 cores : Red, Black

3 cores : Red Yellow, Blue

4 cores : Red Yellow, Blue, Black

2 cores : Red, Black

3 cores : Red, Yellow, Blue

4 cores : Red, Yellow, Blue, Black

CONSTRUCTION AND ELECTRICAL DATA - 600/1000V XLPE/PVC FIRE RESISTANCE CABLE

No. of Cores	Conductor			Nominal Thickness of Insulation	Nominal Thickness of Sheath	Approx. Overall Diameter	Test Voltage	Maximum Conductor Resistance at 20°C	Minimum Insulation Resistance at 20°C
	Nominal Sectional Area	No./Dia. of Wire	Approx. Outer Diameter						
	mm ²		mm	mm	mm	mm		Ω/km	MΩ/km
2	1.5	7/0.53	1.59	0.7	1.8	12	3.5	12.1	2200
2	2.5	7/0.67	2.01	0.7	1.8	13	3.5	7.41	2100
2	4	7/0.85	2.55	0.7	1.8	14	3.5	4.61	1800
2	6	7/1.04	3.12	0.7	1.8	15	3.5	3.08	1500
2	10	7/1.35	4.05	0.7	1.8	17	3.5	1.83	1200
2	16	Min: 6 wire	4.7	0.7	1.8	18	3.5	1.15	1100
2	25	Min: 6 wire	5.9	0.9	1.8	22	3.5	0.727	1100
2	35	Min: 6 wire	7.0	0.9	1.8	24	3.5	0.524	1000
2	50	Min: 6 wire	8.0	1.0	1.8	26	3.5	0.387	900
2	70	Min: 12 wire	9.7	1.1	1.8	30	3.5	0.268	900
2	95	Min: 15 wire	11.4	1.1	2.0	34	3.5	0.193	800
2	120	Min: 18 wire	12.8	1.2	2.1	37	3.5	0.153	800
2	150	Min: 18 wire	14.3	1.4	2.2	41	3.5	0.124	800
2	185	Min: 30 wire	15.8	1.6	2.3	47	3.5	0.0991	700
2	240	Min: 34 wire	18.3	1.7	2.5	53	3.5	0.0754	700
2	300	Min: 34 wire	20.3	1.8	2.7	58	3.5	0.0601	700
2	400	Min: 53 wire	23.3	2.0	2.9	65	3.5	0.0470	700

FIRE RESISTANT CABLE 600/1000V

600/1000V XLPE/PVC SHEATHED FIRE RESISTANCE CABLE

CONSTRUCTION AND ELECTRICAL DATA - 600/1000V XLPE/PVC FIRE RESISTANCE CABLE

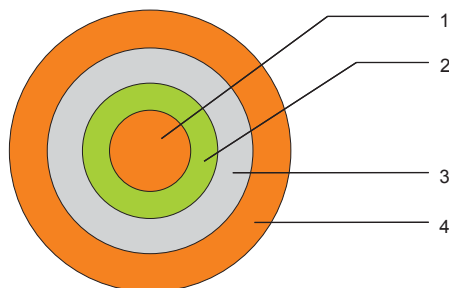
No. of Cores	Conductor			Nominal Thickness of Insulation	Nominal Thickness of Sheath	Approx. Overall Diameter	Test Voltage	Maximum Conductor Resistance at 20°C	Minimum Insulation Resistance at 20°C
	Nominal Sectional Area	No./Dia. of Wire	Approx. Outer Diameter						
	mm²	No./mm	mm						
3	1.5	7/0.53	1.59	0.7	1.8	12	3.5	12.1	2200
3	2.5	7/0.67	2.01	0.7	1.8	13	3.5	7.41	2100
3	4	7/0.85	2.55	0.7	1.8	14	3.5	4.61	1800
3	6	7/1.04	3.12	0.7	1.8	16	3.5	3.08	1500
3	10	7/1.35	4.05	0.7	1.8	18	3.5	1.83	1200
3	16	Min: 6 wire	4.7	0.7	1.8	19	3.5	1.15	1100
3	25	Min: 6 wire	5.9	0.9	1.8	22	3.5	0.727	1100
3	35	Min: 6 wire	7.0	0.9	1.8	25	3.5	0.524	1000
3	50	Min: 6 wire	8.0	1.0	1.8	28	3.5	0.387	900
3	70	Min: 12 wire	9.7	1.1	1.9	32	3.5	0.268	900
3	95	Min: 15 wire	11.4	1.1	2.0	36	3.5	0.193	800
3	120	Min: 18 wire	12.8	1.2	2.1	40	3.5	0.153	800
3	150	Min: 18 wire	14.3	1.4	2.3	44	3.5	0.124	800
3	185	Min: 30 wire	15.8	1.6	2.4	50	3.5	0.0991	700
3	240	Min: 34 wire	18.3	1.7	2.6	57	3.5	0.0754	700
3	300	Min: 34 wire	20.5	1.8	2.8	62	3.5	0.0601	700
3	400	Min: 53 wire	23.3	2.0	3.1	70	3.5	0.0470	700
4	1.5	7/0.53	1.59	0.7	1.8	13	3.5	12.1	2200
4	2.5	7/0.67	2.01	0.7	1.8	14	3.5	7.41	2100
4	4	7/0.85	2.55	0.7	1.8	16	3.5	4.61	1800
4	6	7/1.04	3.12	0.7	1.8	17	3.5	3.08	1500
4	10	7/1.35	4.05	0.7	1.8	19	3.5	1.83	1200
4	16	Min: 6 wire	4.7	0.7	1.8	21	3.5	1.15	1100
4	25	Min: 6 wire	5.9	0.9	1.8	25	3.5	0.727	1100
4	35	Min: 6 wire	7.0	0.9	1.8	28	3.5	0.524	1000
4	50	Min: 6 wire	8.0	1.0	1.9	31	3.5	0.387	900
4	70	Min: 12 wire	9.7	1.1	2.0	36	3.5	0.268	900
4	95	Min: 15 wire	11.4	1.1	2.1	40	3.5	0.193	800
4	120	Min: 18 wire	12.8	1.2	2.3	44	3.5	0.153	800
4	150	Min: 18 wire	14.3	1.4	2.4	49	3.5	0.124	800
4	185	Min: 30 wire	15.8	1.6	2.6	56	3.5	0.0991	700
4	240	Min: 34 wire	18.3	1.7	2.8	63	3.5	0.0754	700
4	300	Min: 34 wire	20.5	1.8	3.0	69	3.5	0.0601	700
4	400	Min: 53 wire	23.3	2.0	3.3	77	3.5	0.0470	700

FIRE RESISTANT CABLE 600/1000V

600/1000V XLPE/LSOH SHEATHED FIRE RESISTANCE CABLE

CONSTRUCTION (1 CORE)

1. CONDUCTOR : ANNEALED STRANDED COPPER WIRE OR COMPACT ROUND STRANDED
2. FIRE PROOF TAPE : FIRE PROOF MICA TAPE
3. INSULATION : CROSS-LINKED POLYETHYLENE
4. OUTER SHEATH : FLAME RETARDANT LOW SMOKE



Core Identification

The core shall be identified as follows:

1 core : Natural colour of XLPE compound

Features

Fully complies with BS 6387 Category C, W, Z and IEC 60331 Fire Resistance Tests

Reduced flame propagation - IEC 60332 part 3 Category A, B, C

Low Smoke Emission - IEC 61034

Low Acid Gas Emission - IEC 60754 part 1 (< 0.5% acid gas)

CONSTRUCTION AND ELECTRICAL DATA - 600/1000V XLPE/LSOH FIRE RESISTANCE CABLE

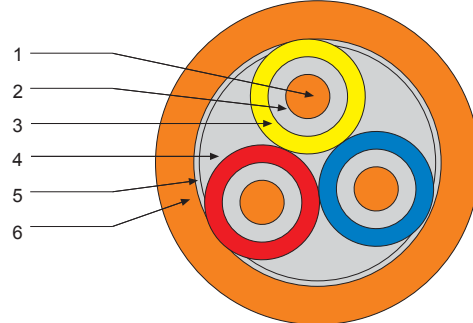
No. of Cores	Conductor			Nominal Thickness of Insulation	Nominal Thickness of Sheath	Approx. Overall Diameter	Test Voltage	Maximum Conductor Resistance at 20°C	Minimum Insulation Resistance at 20°C
	Nominal Sectional Area	No./Dia. of Wire	Approx. Outer Diameter						
	mm²	No./mm	mm						
1	2.5	7/0.67	2.01	0.7	1.4	8	3.5	7.41	2100
1	4	7/0.85	2.55	0.7	1.4	9	3.5	4.61	1800
1	6	7/1.04	3.12	0.7	1.4	9	3.5	3.08	1500
1	10	7/1.35	4.05	0.7	1.4	11	3.5	1.83	1200
1	16	Min: 6 wire	4.7	0.7	1.4	12	3.5	1.15	1100
1	25	Min: 6 wire	5.9	0.9	1.4	13	3.5	0.727	1100
1	35	Min: 6 wire	7.0	0.9	1.4	14	3.5	0.524	1000
1	50	Min: 6 wire	8.0	1.0	1.4	15	3.5	0.387	900
1	70	Min: 12 wire	9.7	1.1	1.4	17	3.5	0.268	900
1	95	Min: 15 wire	11.4	1.1	1.5	19	3.5	0.193	800
1	120	Min: 18 wire	12.8	1.2	1.5	21	3.5	0.153	800
1	150	Min: 18 wire	14.3	1.4	1.6	23	3.5	0.124	800
1	185	Min: 30 wire	15.8	1.6	1.6	25	3.5	0.0991	800
1	240	Min: 34 wire	18.3	1.7	1.7	27	3.5	0.0754	700
1	300	Min: 34 wire	20.5	1.8	1.8	30	3.5	0.0601	700
1	400	Min: 53 wire	23.3	2.0	1.9	33	3.5	0.0470	700
1	500	Min: 53 wire	26.4	2.2	2.0	37	3.5	0.0366	700
1	630	Min: 53 wire	32.76	2.4	2.2	44	3.5	0.0283	600
1	800	Min: 53 wire	37.05	2.6	2.3	49	3.5	0.0221	600
1	1000	Min: 53 wire	41.6	2.8	2.4	54	3.5	0.0176	600

FIRE RESISTANT CABLE 600/1000V

600/1000V XLPE/LSOH SHEATHED FIRE RESISTANCE CABLE

CONSTRUCTION (2, 3 & 4 CORES)

1. CONDUCTOR : ANNEALED STRANDED COPPER WIRE
2. FIRE PROOF LAYER : FIRE PROOF MICA TAPE
3. INSULATION : CROSS-LINKED POLYETHYLENE
4. FILLER : SUITABLE FILLER
5. BINDER TAPE : SUITABLE TAPE
6. OUTER SHEATH : FLAME RETARDANT LOW SMOKE ZERO HALOGEN (ORANGE COLOUR)



Core Identification

The core shall be identified as follows:

2 cores : Red, Black

3 cores : Red, Yellow, Blue

4 cores : Red, Yellow, Blue, Black

Features

Fully complies with BS 6387 Category C, W, Z and IEC 60331 Fire Resistance Tests

Reduced flame propagation - IEC 60332 part 3 Category A, B, C

Low Smoke Emission - IEC 61034

Low Acid Gas Emission - IEC 60754 part 1: < 0.5% acid gas

CONSTRUCTION AND ELECTRICAL DATA - 600/1000V XLPE/LSOH FIRE RESISTANCE CABLE

No. of Cores	Conductor			Nominal Thickness of Insulation	Nominal Thickness of Sheath	Approx. Overall Diameter	Test Voltage	Maximum Conductor Resistance at 20°C	Minimum Insulation Resistance at 20°C
	Nominal Sectional Area	No./Dia. of Wire	Approx. Outer Diameter						
	mm ²	No./mm	mm	mm	mm	mm	kV/5 min.	Ω/km	MΩ/km
2	2.5	7/0.67	2.01	0.7	1.8	14	3.5	7.41	2100
2	4	7/0.85	2.55	0.7	1.8	15	3.5	4.61	1800
2	6	7/1.04	3.12	0.7	1.8	16	3.5	3.08	1500
2	10	7/1.35	4.05	0.7	1.8	18	3.5	1.83	1200
2	16	Min: 6 wire	4.7	0.7	1.8	20	3.5	1.15	1100
2	25	Min: 6 wire	5.9	0.9	1.8	23	3.5	0.727	1100
2	35	Min: 6 wire	7.0	0.9	1.8	25	3.5	0.524	1000
2	50	Min: 6 wire	8.0	1.0	1.8	28	3.5	0.387	900
2	70	Min: 12 wire	9.7	1.1	1.8	31	3.5	0.268	900
2	95	Min: 15 wire	11.4	1.1	2.0	35	3.5	0.193	800
2	120	Min: 18 wire	12.8	1.2	2.1	39	3.5	0.153	800
2	150	Min: 18 wire	14.3	1.4	2.2	43	3.5	0.124	800
2	185	Min: 30 wire	15.8	1.6	2.3	47	3.5	0.0991	700
2	240	Min: 34 wire	18.3	1.7	2.5	53	3.5	0.0754	700
2	300	Min: 34 wire	20.3	1.8	2.7	58	3.5	0.0601	700
2	400	Min: 53 wire	23.3	2.0	2.9	65	3.5	0.0470	700



FIRE RESISTANT CABLE 600/1000V

600/1000V XLPE/LSOH SHEATHED FIRE RESISTANCE CABLE

CONSTRUCTION AND ELECTRICAL DATA - 600/1000V XLPE/LSOH FIRE RESISTANCE CABLE

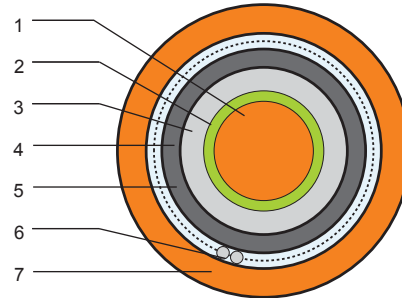
No. of Cores	Conductor			Nominal Thickness of Insulation	Nominal Thickness of Sheath	Approx. Overall Diameter	Test Voltage	Maximum Conductor Resistance at 20°C	Minimum Insulation Resistance at 20°C
	Nominal Sectional Area	No./Dia. of Wire	Approx. Outer Diameter						
	mm ²	No./mm	mm						
3	2.5	7/0.67	2.01	0.7	1.8	14	3.5	7.41	2100
3	4	7/0.85	2.55	0.7	1.8	15	3.5	4.61	1800
3	6	7/1.04	3.12	0.7	1.8	17	3.5	3.08	1500
3	10	7/1.35	4.05	0.7	1.8	19	3.5	1.83	1200
3	16	Min: 6 wire	4.7	0.7	1.8	21	3.5	1.15	1100
3	25	Min: 6 wire	5.9	0.9	1.8	24	3.5	0.727	1100
3	35	Min: 6 wire	7.0	0.9	1.8	27	3.5	0.524	1000
3	50	Min: 6 wire	8.0	1.0	1.8	29	3.5	0.387	900
3	70	Min: 12 wire	9.7	1.1	1.9	34	3.5	0.268	900
3	95	Min: 15 wire	11.4	1.1	2.0	37	3.5	0.193	800
3	120	Min: 18 wire	12.8	1.2	2.1	41	3.5	0.153	800
3	150	Min: 18 wire	14.3	1.4	2.3	46	3.5	0.124	800
3	185	Min: 30 wire	15.8	1.6	2.4	51	3.5	0.0991	700
3	240	Min: 34 wire	18.3	1.7	2.6	57	3.5	0.0754	700
3	300	Min: 34 wire	20.5	1.8	2.8	62	3.5	0.0601	700
3	400	Min 53 wire	23.3	2.0	3.1	70	3.5	0.0470	700
4	2.5	7/0.67	2.01	0.7	1.8	16	3.5	7.41	2100
4	4	7/0.85	2.55	0.7	1.8	17	3.5	4.61	1800
4	6	7/1.04	3.12	0.7	1.8	18	3.5	3.08	1500
4	10	7/1.35	4.05	0.7	1.8	21	3.5	1.83	1200
4	16	Min: 6 wire	4.7	0.7	1.8	23	3.5	1.15	1100
4	25	Min: 6 wire	5.9	0.9	1.8	27	3.5	0.727	1100
4	35	Min: 6 wire	7.0	0.9	1.8	29	3.5	0.524	1000
4	50	Min: 6 wire	8.0	1.0	1.9	33	3.5	0.387	900
4	70	Min: 12 wire	9.7	1.1	2.0	37	3.5	0.268	900
4	95	Min: 15 wire	11.4	1.1	2.1	42	3.5	0.193	800
4	120	Min: 18 wire	12.8	1.2	2.3	46	3.5	0.153	800
4	150	Min: 18 wire	14.3	1.4	2.4	51	3.5	0.124	800
4	185	Min: 30 wire	15.8	1.6	2.6	57	3.5	0.0991	700
4	240	Min: 34 wire	18.3	1.7	2.8	63	3.5	0.0754	700
4	300	Min: 34 wire	20.5	1.8	3.0	70	3.5	0.0601	700
4	400	Min: 53 wire	23.3	2.0	3.3	78	3.5	0.0470	700

FIRE RESISTANT CABLE 600/1000V

600/1000V XLPE/LSOH/AWA/LSOH SHEATHED FIRE RESISTANCE CABLE

CONSTRUCTION

1. CONDUCTOR : ANNEALED STRANDED COPPER WIRE
2. FIRE PROOF LAYER : FIRE PROOF MICA TAPE
3. INSULATION : CROSS-LINKED POLYETHYLENE
4. BINDER TAPE : SUITABLE TAPE
5. SEPARATION SHEATH : FLAME RETARDANT LOW SMOKE ZERO HALOGEN
6. ARMOUR : ALUMINIUM WIRE
7. OUTER SHEATH : FLAME RETARDANT LOW SMOKE ZERO HALOGEN (ORANGE COLOUR)



Core Identification

The core shall be identified as follows:

1 core : Natural colour of XLPE compound

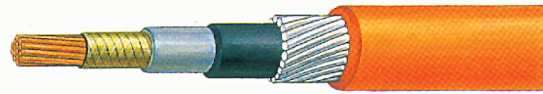
Features

Fully complies with BS 6387 Category C, W, Z and IEC 60331 Fire Resistance Tests

Reduced flame propagation - IEC 60332 part 3 Category A, B, C

Low Smoke Emission - IEC 61034

Low Acid Gas Emission - IEC 60754 part 1 (< 0.5% acid gas)



CONSTRUCTION AND ELECTRICAL DATA - 600/1000V XLPE/LSOH/AWA/LSOH FIRE RESISTANCE CABLE

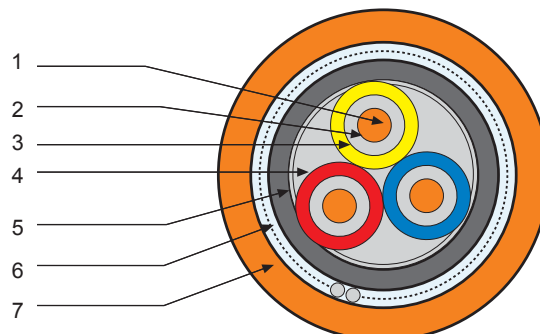
No. of Cores	Conductor			Nominal Thickness of Insulation	Nominal Thickness of Separation Sheath	Armour Wire Diameter	Nominal Thickness of Sheath	Approx. Overall Diameter	Test Voltage	Maximum Conductor Resistance at 20°C	Minimum Insulation Resistance at 20°C	A.C Resistance at 90°C	Reactance at 60Hz	Capacitance
	Nominal Sectional Area	No./Dia. of Wire	Approx. Outer Diameter											
	mm²		mm	mm	mm	mm	mm	mm		Ω/km	MΩ/km	Ω/km	Ω/km	μF/km
1	6	7/1.04	3.12	0.7	1.2	1.6	1.8	14	3.5	3.08	1500	3.93	0.186	0.30
1	10	7/1.35	4.05	0.7	1.2	1.6	1.8	15	3.5	1.83	1200	2.33	0.175	0.32
1	16	Min: 6 Wire	4.7	0.7	1.2	1.6	1.8	17	3.5	1.15	1100	1.47	0.171	0.35
1	25	Min: 6 Wire	5.9	0.9	1.2	1.6	1.8	18	3.5	0.727	1100	0.927	0.160	0.38
1	35	Min: 6 Wire	7.0	0.9	1.2	1.6	1.8	19	3.5	0.524	1000	0.669	0.148	0.42
1	50	Min: 6 Wire	8.0	1.0	1.2	1.6	1.8	21	3.5	0.387	900	0.494	0.142	0.45
1	70	Min: 12 wire	9.7	1.1	1.2	1.6	1.8	22	3.5	0.268	900	0.343	0.134	0.49
1	95	Min: 15 wire	11.4	1.1	1.2	1.6	1.8	24	3.5	0.193	800	0.248	0.129	0.55
1	120	Min: 18 wire	12.8	1.2	1.2	1.6	1.8	26	3.5	0.153	800	0.197	0.126	0.57
1	150	Min: 18 wire	14.3	1.4	1.2	1.6	1.8	28	3.5	0.124	800	0.160	0.123	0.57
1	185	Min: 30 wire	15.8	1.6	1.2	1.6	1.8	30	3.5	0.0991	800	0.129	0.121	0.55
1	240	Min: 34 wire	18.3	1.7	1.2	1.6	1.9	33	3.5	0.0754	700	0.0998	0.116	0.60
1	300	Min: 34 wire	20.5	1.8	1.2	2.0	2.0	36	3.5	0.0601	700	0.0812	0.114	0.62
1	400	Min: 53 wire	23.3	2.0	1.2	2.0	2.2	40	3.5	0.0470	700	0.0657	0.112	0.64
1	500	Min: 53 wire	26.4	2.2	1.2	2.0	2.3	43	3.5	0.0366	700	0.0618	0.107	0.66
1	630	Min: 53 wire	32.76	2.4	1.3	2.5	2.4	51	3.5	0.0283	600	0.0504	0.105	0.70
1	800	Min: 53 wire	37.05	2.6	1.3	2.5	2.6	56	3.5	0.0221	600	0.0456	0.102	0.89
1	1000	Min: 53 wire	41.6	2.8	1.4	2.5	2.7	62	3.5	0.0176	600	0.0379	0.101	0.12

FIRE RESISTANT CABLE 600/1000V

600/1000V XLPE/LSOH/SWA/LSOH SHEATHED FIRE RESISTANCE CABLE

CONSTRUCTION

1. CONDUCTOR : ANNEALED STRANDED COPPER WIRE
2. FIRE PROOF LAYER : FIRE PROOF MICA TAPE
3. INSULATION : CROSS-LINKED POLYETHYLENE
4. BINDER TAPE : SUITABLE TAPE
5. SEPARATION SHEATH : FLAME RETARDANT LOW SMOKE ZERO HALOGEN
6. ARMOUR : GALVANIZED STEEL WIRE
7. OUTER SHEATH : FLAME RETARDANT LOW SMOKE ZERO HALOGEN (ORANGE COLOUR)



Core Identification

The core shall be identified as follows:

2 cores : Red, Black

3 cores : Red, Yellow, Blue

4 cores : Red, Yellow, Blue, Black

Features

Fully complies with BS 6387 Category C, W, Z and IEC 60331 Fire Resistance Tests

Reduced flame propagation - IEC 60332 part 3 Category A, B, C

Low Smoke Emission - IEC 61034

Low Acid Gas Emission - IEC 60754 part 1 (< 0.5% acid gas)

CONSTRUCTION AND ELECTRICAL DATA - 600/1000V XLPE/LSOH/SWA/LSOH FIRE RESISTANCE CABLE

No. of Cores	Conductor			Nominal Thickness of Insulation	Nominal Thickness of Separation Sheath	Armour Wire Diameter	Nominal Thickness of Sheath	Approx. Overall Diameter	Test Voltage	Maximum Conductor Resistance at 20°C	Minimum Insulation Resistance at 20°C	A.C Resistance at 90°C	Reactance at 60Hz	Capacitance
	Nominal Sectional Area	No./Dia. of Wire	Approx. Outer Diameter											
	mm²	No./mm	mm	mm	mm	mm	mm	mm	kV/5min	Ω/km	MΩ/km	Ω/km	Ω/km	μF/km
2	1.5	7/0.53	1.59	0.7	1.2	0.9	1.8	17	3.5	12.1	220	15.43	0.1190	0.23
2	2.5	7/0.67	2.01	0.7	1.2	0.9	1.8	18	3.5	7.41	2100	9.45	0.1120	0.25
2	4	7/0.85	2.55	0.7	1.2	0.9	1.8	19	3.5	4.61	1800	5.88	0.1050	0.27
2	6	7/1.04	3.12	0.7	1.2	1.25	1.8	21	3.5	3.08	1500	3.93	0.1000	0.30
2	10	7/1.35	4.05	0.7	1.2	1.25	1.8	23	3.5	1.83	1200	2.33	0.0942	0.32
2	16	Min: 6 Wire	4.7	0.7	1.2	1.25	1.8	24	3.5	1.15	1100	1.47	0.0913	0.35
2	25	Min: 6 Wire	5.9	0.9	1.2	1.6	1.8	28	3.5	0.727	1100	0.927	0.0922	0.38
2	35	Min: 6 Wire	7.0	0.9	1.2	1.6	1.8	30	3.5	0.524	1000	0.669	0.0892	0.42
2	50	Min: 6 Wire	8.0	1.0	1.2	1.6	1.9	33	3.5	0.387	900	0.494	0.0887	0.45
2	70	Min: 12 wire	9.7	1.1	1.2	2.0	2.0	38	3.5	0.268	900	0.343	0.0872	0.49
2	95	Min: 15 wire	11.4	1.1	1.2	2.0	2.1	41	3.5	0.193	800	0.248	0.0850	0.55
2	120	Min: 18 wire	12.8	1.2	1.2	2.0	2.3	45	3.5	0.153	800	0.197	0.0846	0.57
2	150	Min: 18 wire	14.3	1.4	1.3	2.5	2.4	50	3.5	0.124	800	0.16	0.0850	0.57
2	185	Min: 30 wire	15.8	1.6	1.3	2.5	2.6	55	3.5	0.0991	800	0.129	0.0854	0.55
2	240	Min: 34 wire	18.3	1.7	1.4	2.5	2.7	60	3.5	0.0754	700	0.0998	0.0843	0.60
2	300	Min: 34 wire	20.5	1.8	1.5	2.5	2.9	66	3.5	0.0601	700	0.0812	0.0836	0.62
2	400	Min: 53 wire	23.3	2.0	1.7	2.5	3.2	73	3.5	0.0470	700	0.0657	0.0833	0.64

FIRE RESISTANT CABLE 600/1000V

600/1000V XLPE/LSOH/SWA/LSOH SHEATHED FIRE RESISTANCE CABLE

CONSTRUCTION AND ELECTRICAL DATA - 600/1000V XLPE/LSOH/SWA/LSOH FIRE RESISTANCE CABLE

No. of Cores	Conductor			Nominal Thickness of Insulation	Nominal Thickness of Separation Sheath	Armour Wire Diameter	Nominal Thickness of Sheath	Approx. Overall Diameter	Test Voltage	Maximum Conductor Resistance at 20°C	Minimum Insulation Resistance at 20°C	A.C Resistance at 90°C	Reactance at 60Hz	Capacitance
	Nominal Sectional Area	No./Dia. of Wire	Approx. Outer Diameter											
	mm²	No./mm	mm	mm	mm	mm	mm	mm	kV/5min	Ω/km	MΩ/km	Ω/km	Ω/km	μF/km
3	1.5	7/0.53	1.59	0.7	1.2	0.9	1.8	17	3.5	12.1	2200	15.43	0.119	0.23
3	2.5	7/0.67	2.01	0.7	1.2	0.9	1.8	18	3.5	7.41	2100	9.45	0.112	0.25
3	4	7/0.85	2.55	0.7	1.2	1.25	1.8	20	3.5	4.61	1800	5.88	0.105	0.27
3	6	7/1.04	3.12	0.7	1.2	1.25	1.8	22	3.5	3.08	1500	3.93	0.100	0.30
3	10	7/1.35	4.05	0.7	1.2	1.25	1.8	24	3.5	1.83	1200	2.33	0.0942	0.32
3	16	Min: 6 wire	4.7	0.7	1.2	1.6	1.8	26	3.5	1.15	1100	1.47	0.0913	0.35
3	25	Min: 6 wire	5.9	0.9	1.2	1.6	1.8	30	3.5	0.727	1100	0.927	0.0922	0.38
3	35	Min: 6 wire	7.0	0.9	1.2	1.6	1.8	32	3.5	0.524	1000	0.669	0.0892	0.42
3	50	Min: 6 wire	8.0	1.0	1.2	1.6	1.9	35	3.5	0.387	900	0.494	0.0887	0.45
3	70	Min: 12 wire	9.7	1.1	1.2	2.0	2.0	40	3.5	0.268	900	0.343	0.0872	0.49
3	95	Min:15 wire	11.4	1.1	1.2	2.0	2.1	44	3.5	0.193	800	0.248	0.085	0.55
3	120	Min: 18 wire	12.8	1.2	1.2	2.0	2.3	48	3.5	0.153	800	0.197	0.0846	0.57
3	150	Min: 18 wire	14.3	1.4	1.3	2.5	2.4	53	3.5	0.124	800	0.160	0.085	0.57
3	185	Min: 30 wire	15.8	1.6	1.3	2.5	2.6	58	3.5	0.0991	800	0.129	0.0854	0.55
3	240	Min: 34 wire	18.3	1.7	1.4	2.5	2.7	65	3.5	0.0754	700	0.0998	0.0843	0.60
3	300	Min: 34 wire	20.5	1.8	1.5	2.5	2.9	70	3.5	0.0601	700	0.0812	0.0836	0.62
3	400	Min: 53 wire	23.3	2.0	1.7	2.5	3.2	80	3.5	0.0470	700	0.0657	0.0833	0.64
4	1.5	7/0.53	1.59	0.7	1.2	0.9	1.8	19	3.5	12.1	2200	15.43	0.119	0.23
4	2.5	7/0.67	2.01	0.7	1.2	1.25	1.8	20	3.5	7.41	2100	9.45	0.112	0.25
4	4	7/0.85	2.55	0.7	1.2	1.25	1.8	22	3.5	4.61	1800	5.88	0.105	0.27
4	6	7/1.04	3.12	0.7	1.2	1.25	1.8	23	3.5	3.08	1500	3.93	0.100	0.30
4	10	7/1.35	4.05	0.7	1.2	1.25	1.8	26	3.5	1.83	1200	2.33	0.0942	0.32
4	16	Min 6 wire	4.7	0.7	1.2	1.6	1.8	28	3.5	1.15	1100	1.47	0.0913	0.35
4	25	Min 6 wire	5.9	0.9	1.2	1.6	1.8	32	3.5	0.727	1100	0.927	0.0922	0.38
4	35	Min 6 wire	7.0	0.9	1.2	1.6	1.9	35	3.5	0.524	1000	0.669	0.0892	0.42
4	50	Min 6 wire	8.0	1.0	1.2	1.6	2.1	39	3.5	0.387	900	0.494	0.0887	0.45
4	70	Min: 12 wire	9.7	1.1	1.2	2.0	2.2	43	3.5	0.268	900	0.343	0.0872	0.49
4	95	Min:15 wire	11.4	1.1	1.2	2.0	2.3	48	3.5	0.193	800	0.248	0.085	0.55
4	120	Min: 18 wire	12.8	1.2	1.3	2.5	2.5	53	3.5	0.153	800	0.197	0.0846	0.57
4	150	Min: 18 wire	14.3	1.4	1.4	2.5	2.7	58	3.5	0.124	800	0.160	0.085	0.57
4	185	Min: 30 wire	15.8	1.6	1.5	2.5	2.8	64	3.5	0.0991	800	0.129	0.0854	0.55
4	240	Min: 34 wire	18.3	1.7	1.6	2.5	3.1	71	3.5	0.0754	700	0.0998	0.0843	0.60
4	300	Min: 34 wire	20.5	1.8	1.7	2.5	3.3	77	3.5	0.0601	700	0.0812	0.0836	0.62
4	400	Min: 53 wire	23.3	2.0	1.9	3.15	3.6	87	3.5	0.0470	700	0.0657	0.0833	0.64