SOUTHERN CABLE

Design with specification,
manufacture with intergrity.

DESIGN TO **PRIORITISE SAFETY**

SCAN QR FOR FULL BOOKLET

SCAN QR FOR SEPERATE PAGES

SOUTHERNCABLE.COM.MY

FIRE RESISTANT CABLE

Southern Cable offers True Fire Resistant Mineral Insulated Cables for armoured and unarmoured designs, single and multicore constructions and a wide range of sheathing and screening options. The fire resistant cable is designed to prioritise safety by maintain circuit integrity within fire condition for any essential equipment.

Southern Cable also manufactures a comprehensive range of Low Smoke Zero Halogen (LSOH) cables. Smoke, heat, toxic fumes are one of the key factors of hindering a safe evacuation. Thus, fire resistant and non-halogenated are designed to cater the hazards situation during fire condition. Commonly use indoors, public areas, hazardous environment and poorly ventilated areas.

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

STANDARD SPECIFICATIONS

IEC 60228	Class 2 Conductor Design Guidelines
IEC 60331	Fire Resistant
IEC 60332-1	Flame Retardant
IEC 60332-3	Flame Retardant Cat. A
IEC 60502-1	1kV to 30kV Cable Design Guideline
IEC 60754	Low Smoke Properties
IEC 61034	Halogen Free Properties
BS 6387 - Cat. CWZ	Fire Resistant Properties

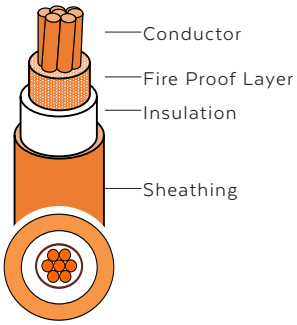
For more details on the detailed design guideline, test method and performance requirement on each specification, please refer to the last page of catalogue.

CONTENT PAGE

FIRE RESISTANT CABLE (IEC SPECIFICATION)

SINGLE CORE – COPPER, MICA GLASS TAPE, XLPE INSULATED, PVC SHEATHED CABLE

600/1000V, CU / MGT / XLPE / PVC



STANDARD SPECIFICATION	IEC 60502-1, IEC60331
CABLE DESCRIPTION	Copper Conductor, Mica Glass Tape, XLPE Insulated, Non-Armoured, PVC Sheathed Cables - 1 Core
CABLE SIZES RANGE	1 Core x (1.5 - 630)mm²
INSULATION COLOURS	Orange, other colours is available upon request.

APPLICATION

For general purpose internal wiring of electronic and electrical equipment, installation in surface mounted or embedded conduits or similiar closed systems. Commonly use for protected installation in or on lighting fitting inside electronic, eletrical appliances, switchgear and control gear. Uniform insulation thickness of wire to ensure easy stripping and cutting.

SPECIAL FEATURE ON REQUEST

- UV Resistance
- Anti Termite
- Anti Rodent
- Low Smoke Zero Halogen (IEC 60754, IEC 61034)
- Flame Retardant Cat A, B, C (IEC 60332-3)

STANDARD PACKING

Our fire resistant cable standard packing varies according to sizes, please get in touch with our salesperson for the specific fire resistant cable's standard packing list.

CONSTRUCTION DATA

Number of Core	Nominal Sectional Area	Conductor Diameter (Approx)	Nominal Insulation Thickness	Nominal Outer Sheath Thickness	Overall Diameter (Approx)	Cable Copper Weight (Approx)
Nos	mm²	mm	mm	mm	mm	kg/km
1	1.5	1.59	0.70	1.40	6.4	48
	2.5	2.01			6.8	63
	4	2.55			7.4	82
	6	3.12			7.9	106
	10	3.80			8.6	150
	16	4.74			9.6	213
	25	5.97	0.90		11.2	331
	35	7.10			12.3	434
	50	8.10	1.00		13.5	572
	70	9.74	1.10	1.45	15.5	806
	95	11.46		1.55	17.4	1083
	120	12.93	1.20	1.60	19.2	1360
	150	14.33	1.40	1.65	21.1	1433
	185	16.05	1.60	1.70	23.3	2124
	240	18.43	1.70	1.80	26.1	2731
	300	20.64	1.80	1.85	28.6	3427
	400	23.34	2.00	2.00	32.0	4401
	500	26.21	2.20	2.10	35.4	5548
	630	29.80	2.40	2.25	39.7	7203

ELECTRICAL DATA

Max. Conductor Resistance. DC at 20°C	Current Carrying Capacity In Air at 30°C	Voltage Drop	Short Circuit Current for 1 sec
Ω/km	A	mV/A/m	kA
12.10	-	27	0.21
7.41		16	0.36
4.61		10	0.57
3.08		6.8	0.86
1.83		4	1.43
1.15		2.5	2.29
0.727	135	1.60	3.58
0.524	169	1.15	5.01
0.387	207	0.87	7.15
0.268	268	0.61	10.02
0.193	328	0.45	13.59
0.153	383	0.37	17.17
0.124	444	0.31	21.46
0.099	510	0.26	26.47
0.075	607	0.22	34.34
0.060	703	0.195	42.93
0.047	823	0.175	57.23
0.037	946	0.160	71.54
0.028	1088	0.150	90.14

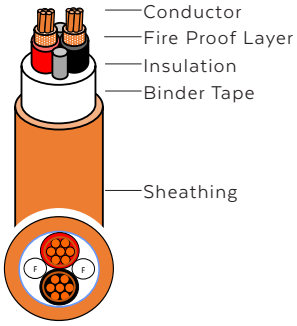
SHAPE OF CONDUCTOR

1.5 - 630 sqmm Compacted

FIRE RESISTANT CABLE (IEC SPECIFICATION)

TWO CORE – COPPER, MICA GLASS TAPE, XLPE INSULATED, PVC SHEATHED CABLE

600/1000V, CU / MGT / XLPE / PVC



STANDARD SPECIFICATION	IEC 60502-1, IEC60331
CABLE DESCRIPTION	Copper Conductor, Mica Glass Tape, XLPE Insulated, Non-Armoured, PVC Sheathed Cables - 2 Core
CABLE SIZES RANGE	2 Core x (1.5 - 400)mm²
INSULATION COLOURS	Orange, other colours is available upon request.

APPLICATION

For general purpose internal wiring of electronic and electrical equipment, installation in surface mounted or embedded conduits or similiar closed systems. Commonly use for protected installation in or on lighting fitting inside electronic, eletrical appliances, switchgear and control gear. Uniform insulation thickness of wire to ensure easy stripping and cutting.

SPECIAL FEATURE ON REQUEST

- UV Resistance
- Anti Termite
- Anti Rodent
- Low Smoke Zero Halogen (IEC 60754, IEC 61034)
- Flame Retardant Cat A, B, C (IEC 60332-3)

STANDARD PACKING

Our fire resistant cable standard packing varies according to sizes, please get in touch with our salesperson for the specific fire resistant cable's standard packing list.

CONSTRUCTION DATA

Number of Core	Nominal Sectional Area	Conductor Diameter (Approx)	Nominal Insulation Thickness	Nominal Outer Sheath Thickness	Overall Diameter (Approx)	Cable Copper Weight (Approx)
Nos	mm²	mm	mm	mm	mm	kg/km
2	1.5	1.59	0.70	1.80	10.4	124
	2.5	2.01			11.2	153
	4	2.55			12.3	197
	6	3.12			13.4	252
	10	3.80			14.8	349
	16	4.74			16.7	490
	25	5.97	0.90		20.4	730
	35	7.10			22.6	956
	50	8.10	1.00		25.0	1239
	70	9.74	1.10		29.0	1734
	95	11.46		1.86	32.7	2331
	120	12.93	1.20	1.99	36.3	2915
	150	14.33	1.40	2.14	40.2	3066
	185	16.05	1.60	2.31	44.8	4461
	240	18.43	1.70	2.51	50.3	5723
	300	20.64	1.80	2.70	55.5	7180
	400	23.34	2.00	2.95	62.2	9124

ELECTRICAL DATA

Max. Conductor Resistance. DC at 20°C	Current Carrying Capacity In Air at 30°C	Voltage Drop	Short Circuit Current for 1 sec
Ω/km	A	mV/A/m	kA
12.10	26	31	0.21
7.41	36	19	0.36
4.61	49	12	0.57
3.08	63	7.9	0.86
1.83	86	4.7	1.43
1.15	115	2.9	2.29
0.727	149	1.90	3.58
0.524	185	1.35	5.01
0.387	225	1.00	7.15
0.268	289	0.69	10.02
0.193	352	0.52	13.59
0.153	410	0.42	17.17
0.124	473	0.35	21.46
0.099	542	0.29	26.47
0.075	641	0.24	34.34
0.060	741	0.210	42.93
0.047	865	0.190	57.23

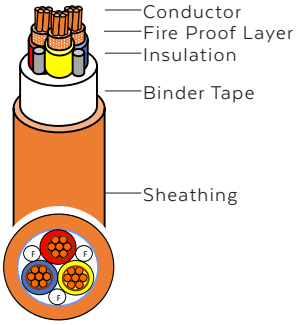
SHAPE OF CONDUCTOR

1.5 - 6 sqmm Circular
10 - 400 sqmm Compacted Round

FIRE RESISTANT CABLE (IEC SPECIFICATION)

THREE CORE – COPPER, MICA GLASS TAPE, XLPE INSULATED, PVC SHEATHED CABLE

600/1000V, CU / MGT / XLPE / PVC



STANDARD SPECIFICATION	IEC 60502-1, IEC60331
CABLE DESCRIPTION	Copper Conductor, Mica Glass Tape, XLPE Insulated, Non-Armoured, PVC Sheathed Cables - 3 Core
CABLE SIZES RANGE	3 Core x (1.5 - 400)mm²
INSULATION COLOURS	Orange, other colours is available upon request.

APPLICATION

For general purpose internal wiring of electronic and electrical equipment, installation in surface mounted or embedded conduits or similiar closed systems. Commonly use for protected installation in or on lighting fitting inside electronic, eletrical appliances, switchgear and control gear. Uniform insulation thickness of wire to ensure easy stripping and cutting.

SPECIAL FEATURE ON REQUEST

- UV Resistance
- Anti Termite
- Anti Rodent
- Low Smoke Zero Halogen (IEC 60754, IEC 61034)
- Flame Retardant Cat A, B, C (IEC 60332-3)

STANDARD PACKING

Our fire resistant cable standard packing varies according to sizes, please get in touch with our salesperson for the specific fire resistant cable's standard packing list.

CONSTRUCTION DATA

Number of Core	Nominal Sectional Area	Conductor Diameter (Approx)	Nominal Insulation Thickness	Nominal Outer Sheath Thickness	Overall Diameter (Approx)	Cable Copper Weight (Approx)
Nos	mm²	mm	mm	mm	mm	kg/km
3	1.5	1.59	0.70	1.80	10.9	150
	2.5	2.01			11.8	190
	4	2.55			13.0	250
	6	3.12			14.2	325
	10	3.80			15.7	463
	16	4.74			17.7	663
	25	5.97	0.90		21.7	1000
	35	7.10			24.1	1322
	50	8.10	1.00		26.8	1733
	70	9.74	1.10		31.1	2444
	95	11.46		1.95	35.1	3300
	120	12.93	1.20	2.09	38.9	4134
	150	14.33	1.40	2.25	43.1	4310
	185	16.05	1.60	2.43	48.1	6338
	240	18.43	1.70	2.65	54.1	8146
	300	20.64	1.80	2.86	59.7	10241
	400	23.34	2.00	3.13	66.9	13029

ELECTRICAL DATA

Max. Conductor Resistance. DC at 20°C	Current Carrying Capacity In Air at 30°C	Voltage Drop	Short Circuit Current for 1 sec
Ω/km	A	mV/A/m	kA
12.10	23	27	0.21
7.41	32	16	0.36
4.61	42	10	0.57
3.08	54	6.8	0.86
1.83	75	4.0	1.43
1.15	100	2.5	2.29
0.727	127	1.65	3.58
0.524	158	1.15	5.01
0.387	192	0.87	7.15
0.268	246	0.60	10.02
0.193	298	0.45	13.59
0.153	346	0.37	17.17
0.124	399	0.30	21.46
0.099	456	0.26	26.47
0.075	538	0.21	34.34
0.060	621	0.185	42.93
0.047	741	0.165	57.23

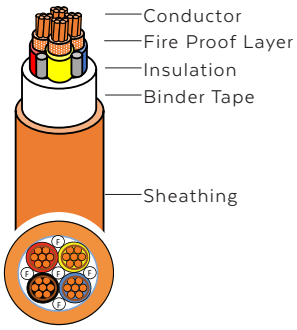
SHAPE OF CONDUCTOR

1.5 - 6 sqmm Circular
10 - 400 sqmm Compact Round

FIRE RESISTANT CABLE (IEC SPECIFICATION)

FOUR CORE — COPPER, MICA GLASS TAPE, XLPE INSULATED, PVC SHEATHED CABLE

600/1000V, CU / MGT / XLPE / PVC



STANDARD SPECIFICATION	IEC 60502-1, IEC60331
CABLE DESCRIPTION	Copper Conductor, Mica Glass Tape, XLPE Insulated, Non-Armoured, PVC Sheathed Cables - 4 Core
CABLE SIZES RANGE	4 Core x (1.5 - 400)mm²
INSULATION COLOURS	Orange, other colours is available upon request.

APPLICATION

For general purpose internal wiring of electronic and electrical equipment, installation in surface mounted or embedded conduits or similiar closed systems. Commonly use for protected installation in or on lighting fitting inside electronic, eletrical appliances, switchgear and control gear. Uniform insulation thickness of wire to ensure easy stripping and cutting.

SPECIAL FEATURE ON REQUEST

- UV Resistance
- Anti Termite
- Anti Rodent
- Low Smoke Zero Halogen (IEC 60754, IEC 61034)
- Flame Retardant Cat A, B, C (IEC 60332-3)

STANDARD PACKING

Our fire resistant cable standard packing varies according to sizes, please get in touch with our salesperson for the specific fire resistant cable's standard packing list.

CONSTRUCTION DATA

Number of Core	Nominal Sectional Area	Conductor Diameter (Approx)	Nominal Insulation Thickness	Nominal Outer Sheath Thickness	Overall Diameter (Approx)	Cable Copper Weight (Approx)
Nos	mm²	mm	mm	mm	mm	kg/km
4	1.5	1.59	0.70	1.80	12.8	209
	2.5	2.01			14.0	270
	4	2.55			15.4	364
	6	3.12			17.0	481
	10	3.80			18.8	702
	16	4.74			21.3	1020
	25	5.97	0.90		26.2	1556
	35	7.10			29.5	2091
	50	8.10	1.00	1.87	33.0	2768
	70	9.74	1.10	2.07	38.4	3916
	95	11.46		2.26	43.4	5305
	120	12.93	1.20	2.44	48.3	6655
	150	14.33	1.40	2.63	53.5	6900
	185	16.05	1.60	2.86	59.7	10218
	240	18.43	1.70	3.14	67.2	13146
	300	20.64	1.80	3.40	74.3	16552
	400	23.34	2.00	3.73	83.3	21075

ELECTRICAL DATA

Max. Conductor Resistance. DC at 20°C	Current Carrying Capacity In Air at 30°C	Current Carrying Capacity In Ground at 20°C	Voltage Drop	Short Circuit Current for 1 sec
Ω/km	A	A	mV/A/m	kA
12.10	29	25	31	0.21
7.41	39	33	19	0.36
4.61	52	43	12	0.57
3.08	66	53	7.9	0.86
1.83	90	71	4.7	1.43
1.15	115	91	2.9	2.29
0.727	152	116	1.90	3.58
0.524	188	139	1.35	5.01
0.387	228	164	1.00	7.15
0.268	291	203	0.69	10.02
0.193	354	239	0.52	13.59
0.153	410	271	0.42	17.17
0.124	472	306	0.35	21.46
0.0991	539	343	0.29	26.47
0.0754	636	395	0.24	34.34
0.0601	732	446	0.210	42.93
0.0470	847	-	0.190	57.23

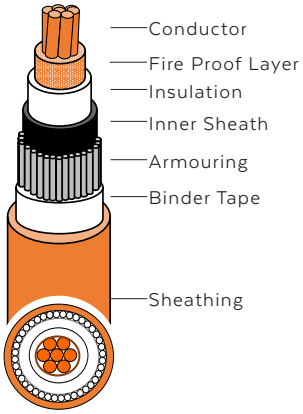
SHAPE OF CONDUCTOR

1.5 - 6 sqmm Circular
10 - 400 sqmm Compacted Round

FIRE RESISTANT CABLE (IEC SPECIFICATION)

ONE CORE – COPPER, MICA GLASS TAPE, XLPE INSULATED, ALUMINIUM WIRE ARMOURED, PVC SHEATHED CABLE

600/1000V, CU / MGT / XLPE / AWA / PVC



STANDARD SPECIFICATION	IEC 60502-1, IEC60331, IEC60332
CABLE DESCRIPTION	Copper Conductor, Mica Glass Tape, XLPE Insulated, Aluminium Armoured, PVC Sheathed Cables - 1 Core
CABLE SIZES RANGE	1 Core x (1.5 - 630)mm²
INSULATION COLOURS	Orange, other colours is available upon request.

APPLICATION

For general purpose internal wiring of electronic and electrical equipment, installation in surface mounted or embedded conduits or similiar closed systems. Commonly use for protected installation in or on lighting fitting inside electronic, eletrical appliances, switchgear and control gear. Uniform insulation thickness of wire to ensure easy stripping and cutting.

SPECIAL FEATURE ON REQUEST

- UV Resistance
- Anti Termite
- Anti Rodent
- Low Smoke Zero Halogen (IEC 60754, IEC 61034)
- Flame Retardant Cat A, B, C (IEC 60332-3)

STANDARD PACKING

Our fire resistant cable standard packing varies according to sizes, please get in touch with our salesperson for the specific fire resistant cable's standard packing list.

CONSTRUCTION DATA

Number of Core	Nominal Sectional Area	Conductor Diameter (Approx)	Nominal Insulation Thickness	Nominal Inner Sheath Thickness	Inner Sheath Diameter (Approx)	Aluminium Wire Diameter	Nominal Outer Sheath Thickness	Overall Diameter (Approx)	Cable Weight (Approx)
Nos	mm²	mm	mm	mm	mm	mm	mm	mm	kg/km
1	16	4.74	0.70	1.00	8.7	1.04	1.80	14.4	368
	25	5.97	0.90	1.00	10.3	1.04	1.80	16.1	495
	35	7.10	0.90	1.00	11.4	1.25	1.80	17.6	633
	50	8.10	1.00	1.00	12.6	1.25	1.80	18.8	780
	70	9.74	1.10	1.00	14.5	1.25	1.80	20.7	1029
	95	11.46	1.10	1.00	16.2	1.60	1.80	23.4	1376
	120	12.93	1.20	1.00	17.9	1.60	1.80	25.1	1678
	150	14.33	1.40	1.00	19.7	1.60	1.80	27.0	2038
	185	16.05	1.60	1.00	21.8	1.60	1.90	29.4	2418
	240	18.43	1.70	1.00	24.4	1.60	2.00	32.1	3025
	300	20.64	1.80	1.00	26.8	2.00	2.10	35.5	3810
	400	23.34	2.00	1.20	30.3	2.00	2.20	39.2	4774
	500	26.21	2.20	1.20	33.6	2.00	2.35	42.8	5879
	630	29.80	2.40	1.20	37.6	2.00	2.45	47.0	7438

ELECTRICAL DATA

Max. Conductor Resistance. DC at 20°C	Current Carrying Capacity In Air at 30°C	Voltage Drop	Short Circuit Current for 1 sec
Ω/km	A	mV/A/m	kA
1.15	-	-	2.29
0.727	-	-	3.58
0.524	-	-	5.01
0.387	222	0.87	7.15
0.268	285	0.62	10.02
0.193	346	0.47	13.59
0.153	402	0.39	17.17
0.124	462	0.33	21.46
0.0991	524	0.28	26.47
0.0754	612	0.24	34.34
0.0601	700	0.210	42.93
0.0470	767	0.195	57.23
0.0366	851	0.180	71.54
0.0283	935	0.170	90.14

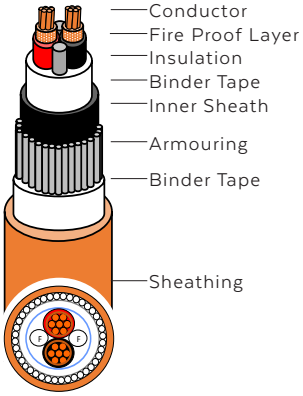
SHAPE OF CONDUCTOR

1.5 - 6 sqmm Circular
10 - 400 sqmm Compact Round

FIRE RESISTANT CABLE (IEC SPECIFICATION)

TWO CORE – COPPER, MICA GLASS TAPE, XLPE INSULATED, STEEL WIRE ARMOURED, PVC SHEATHED CABLE

600/1000V, CU / MGT / XLPE / SWA / PVC



STANDARD SPECIFICATION	IEC 60502-1, IEC60331, IEC60332
CABLE DESCRIPTION	Copper Conductor, Mica Glass Tape, XLPE Insulated, Galvanized Armoured, PVC Sheathed Cables - 2 Core
CABLE SIZES RANGE	2 Core x (1.5 - 400)mm²
INSULATION COLOURS	Orange, other colours is available upon request.

APPLICATION

For general purpose internal wiring of electronic and electrical equipment, installation in surface mounted or embedded conduits or similiar closed systems. Commonly use for protected installation in or on lighting fitting inside electronic, eletrical appliances, switchgear and control gear. Uniform insulation thickness of wire to ensure easy stripping and cutting.

SPECIAL FEATURE ON REQUEST

- UV Resistance
- Anti Termite
- Anti Rodent
- Low Smoke Zero Halogen (IEC 60754, IEC 61034)
- Flame Retardant Cat A, B, C (IEC 60332-3)

STANDARD PACKING

Our fire resistant cable standard packing varies according to sizes, please get in touch with our salesperson for the specific fire resistant cable's standard packing list.

CONSTRUCTION DATA

Number of Core	Nominal Sectional Area	Conductor Diameter (Approx)	Nominal Insulation Thickness	Nominal Inner Sheath Thickness	Inner Sheath Diameter (Approx)	Steel Wire Diameter	Nominal Outer Sheath Thickness	Overall Diameter (Approx)	Cable Copper Weight (Approx)
Nos	mm²	mm	mm	mm	mm	mm	mm	mm	kg/km
2	1.5	1.59	0.70	1.00	9.2	0.90	1.80	14.6	359
	2.5	2.01			10.0			15.5	405
	4	2.55			11.1	1.25		17.2	562
	6	3.12			12.2			18.4	646
	10	3.80			13.6			19.8	782
	16	4.74			15.5	1.60		22.6	1106
	25	5.97	0.90		18.7		1.79	26.0	1423
	35	7.10			21.0		1.87	28.5	1722
	50	8.10	1.00		23.4		1.95	31.0	2085
	70	9.74	1.10	1.20	27.5	2.00	2.12	36.3	2971
	95	11.46			30.9		2.24	39.9	3686
	120	12.93	1.20		34.2		2.36	43.5	4408
	150	14.33	1.40	1.40	38.2	2.50	2.53	48.9	5734
	185	16.05	1.60		42.5		2.68	53.4	6689
	240	18.43	1.70		47.6		2.86	58.9	8152
	300	20.64	1.80	1.60	52.9		3.04	64.5	9864
	400	23.34	2.00		59.1		3.26	71.1	12028

ELECTRICAL DATA

Max. Conductor Resistance. DC at 20°C	Current Carrying Capacity In Air at 30°C	Voltage Drop	Short Circuit Current for 1 sec
Ω/km	A	mV/A/m	kA
12.10	23	27	0.21
7.41	32	16	0.36
4.61	42	10	0.57
3.08	54	6.8	0.86
1.83	75	4.0	1.43
1.15	100	2.5	2.29
0.727	127	1.65	3.58
0.524	158	1.15	5.01
0.387	192	0.87	7.15
0.268	246	0.60	10.02
0.193	298	0.45	13.59
0.153	346	0.37	17.17
0.124	399	0.30	21.46
0.099	456	0.26	26.47
0.075	538	0.21	34.34
0.060	621	0.185	42.93
0.047	741	0.165	57.23

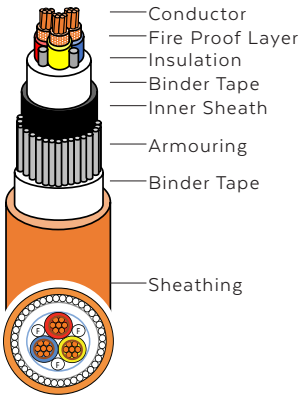
SHAPE OF CONDUCTOR

1.5 - 6 sqmm Circular
10 - 400 sqmm Compacted Round

FIRE RESISTANT CABLE (IEC SPECIFICATION)

THREE CORE – COPPER, MICA GLASS TAPE, XLPE INSULATED, STEEL WIRE ARMOURED, PVC SHEATHED CABLE

600/1000V, CU / MGT / XLPE / SWA / PVC



STANDARD SPECIFICATION	IEC 60502-1, IEC60331, IEC60332
CABLE DESCRIPTION	Copper Conductor, Mica Glass Tape, XLPE Insulated, Galvanized Steel Armoured, PVC Sheathed Cables - 3 Core
CABLE SIZES RANGE	3 Core x (1.5 - 400)mm²
INSULATION COLOURS	Orange, other colours is available upon request.

APPLICATION

For general purpose internal wiring of electronic and electrical equipment, installation in surface mounted or embedded conduits or similiar closed systems. Commonly use for protected installation in or on lighting fitting inside electronic, eletrical appliances, switchgear and control gear. Uniform insulation thickness of wire to ensure easy stripping and cutting.

SPECIAL FEATURE ON REQUEST

- UV Resistance
- Anti Termite
- Anti Rodent
- Low Smoke Zero Halogen (IEC 60754, IEC 61034)
- Flame Retardant Cat A, B, C (IEC 60332-3)

STANDARD PACKING

Our fire resistant cable standard packing varies according to sizes, please get in touch with our salesperson for the specific fire resistant cable's standard packing list.

CONSTRUCTION DATA

Number of Core	Nominal Sectional Area	Conductor Diameter (Approx)	Nominal Insulation Thickness	Nominal Inner Sheath Thickness	Inner Sheath Diameter (Approx)	Steel Wire Diameter	Nominal Outer Sheath Thickness	Overall Diameter (Approx)	Cable Copper Weight (Approx)
Nos	mm²	mm	mm	mm	mm	mm	mm	mm	kg/km
3	1.5	1.59	0.70	1.00	9.7	0.90	1.80	15.2	396
	2.5	2.01			10.6			16.8	541
	4	2.55			11.8			17.9	632
	6	3.12			13.0			19.2	739
	10	3.80			14.5	1.25		20.7	920
	16	4.74			16.5	1.60		23.6	1314
	25	5.97	0.90		20.0			27.4	1735
	35	7.10			22.4		1.90	30.0	2138
	50	8.10	1.00		25.0		2.00	32.8	2633
	70	9.74	1.10	1.20	29.4	2.00	2.15	38.2	3751
	95	11.46			33.1		2.30	42.3	4738
	120	12.93	1.20		36.7	2.50	2.45	47.2	6132
	150	14.33	1.40	1.40	41.0		2.60	51.7	7414
	185	16.05	1.60		45.5		2.75	56.6	8708
	240	18.43	1.70	1.60	51.5		2.95	63.0	10807
	300	20.64	1.80		56.7		3.15	68.6	13105
	400	23.34	2.00		63.4	3.15	3.45	77.1	17009

ELECTRICAL DATA

Max. Conductor Resistance. DC at 20°C	Current Carrying Capacity In Air at 30°C	Current Carrying Capacity In Ground at 20°C	Voltage Drop	Short Circuit Current for 1 sec
Ω/km	A	A	mV/A/m	kA
12.10	25	21	27	0.21
7.41	33	28	16	0.36
4.61	44	36	10	0.57
3.08	56	44	6.8	0.86
1.83	78	58	4.0	1.43
1.15	99	75	2.5	2.29
0.727	131	96	1.65	3.58
0.524	162	115	1.15	5.01
0.387	197	135	0.87	7.15
0.268	251	167	0.60	10.02
0.193	304	197	0.45	13.59
0.153	353	223	0.37	17.17
0.124	406	251	0.30	21.46
0.0991	463	281	0.26	26.47
0.0754	546	324	0.21	34.34
0.0601	628	365	0.185	42.93
0.0470	728	-	0.165	57.23

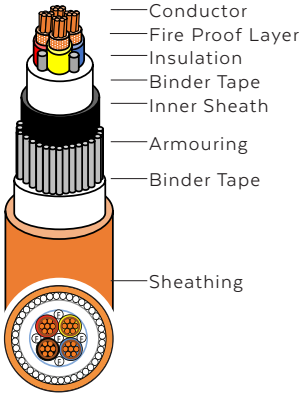
SHAPE OF CONDUCTOR

1.5 - 6 sqmm Circular
10 - 400 sqmm Compact Round

FIRE RESISTANT CABLE (IEC SPECIFICATION)

FOUR CORE – COPPER, MICA GLASS TAPE, XLPE INSULATED, STEEL WIRE ARMOURED, PVC SHEATHED CABLE

600/1000V, CU / MGT / XLPE / SWA / PVC



STANDARD SPECIFICATION	IEC 60502-1, IEC60331, IEC60332
CABLE DESCRIPTION	Copper Conductor, Mica Glass Tape, XLPE Insulated, Galvanized Steel Armoured, PVC Sheathed Cables - 4 Core
CABLE SIZES RANGE	4 Core x (1.5 - 400)mm²
INSULATION COLOURS	Orange, other colours is available upon request.

APPLICATION

For general purpose internal wiring of electronic and electrical equipment, installation in surface mounted or embedded conduits or similiar closed systems. Commonly use for protected installation in or on lighting fitting inside electronic, eletrical appliances, switchgear and control gear. Uniform insulation thickness of wire to ensure easy stripping and cutting.

SPECIAL FEATURE ON REQUEST

- UV Resistance
- Anti Termite
- Anti Rodent
- Low Smoke Zero Halogen (IEC 60754, IEC 61034)
- Flame Retardant Cat A, B, C (IEC 60332-3)

STANDARD PACKING

Our fire resistant cable standard packing varies according to sizes, please get in touch with our salesperson for the specific fire resistant cable's standard packing list.

CONSTRUCTION DATA

Number of Core	Nominal Sectional Area	Conductor Diameter (Approx)	Nominal Insulation Thickness	Nominal Inner Sheath Thickness	Inner Sheath Diameter (Approx)	Steel Wire Diameter	Nominal Outer Sheath Thickness	Overall Diameter (Approx)	Cable Copper Weight (Approx)
Nos	mm²	mm	mm	mm	mm	mm	mm	mm	kg/km
4	1.5	1.59	0.70	1.00	10.6	1.25	1.80	16.8	531
	2.5	2.01			11.6			17.8	608
	4	2.55			12.9			19.1	719
	6	3.12			14.3			20.6	855
	10	3.80			15.9	1.60		23.1	1215
	16	4.74			18.2		1.75	25.5	1554
	25	5.97	0.90		22.2		1.90	29.7	2096
	35	7.10			24.9		2.00	32.6	2608
	50	8.10	1.00	1.20	28.2	2.00	2.15	37.0	3534
	70	9.74	1.10		32.6		2.30	41.8	4623
	95	11.46			36.8	2.50	2.50	47.3	6295
	120	12.93	1.20	1.40	41.2		2.65	52.1	7681
	150	14.33	1.40		45.5		2.80	56.7	9251
	185	16.05	1.60	1.60	51.1		3.00	62.6	10989
	240	18.43	1.70		57.3		3.20	69.3	13604
	300	20.64	1.80		63.1	3.15	3.45	76.9	17443
	400	23.34	2.00		70.6		3.70	84.9	21460

ELECTRICAL DATA

Max. Conductor Resistance, DC at 20°C	Current Carrying Capacity In Air at 30°C	Current Carrying Capacity In Ground at 20°C	Voltage Drop	Short Circuit Current for 1 sec
Ω/km	A	A	mV/A/m	kA
12.10	25	21	27	0.21
7.41	33	28	16	0.36
4.61	44	36	10	0.57
3.08	56	44	6.8	0.86
1.83	78	58	4.0	1.43
1.15	99	75	2.5	2.29
0.727	131	96	1.65	3.58
0.524	162	115	1.15	5.01
0.387	197	135	0.87	7.15
0.268	251	167	0.60	10.02
0.193	304	197	0.45	13.59
0.153	353	223	0.37	17.17
0.124	406	251	0.30	21.46
0.0991	463	281	0.26	26.47
0.0754	546	324	0.21	34.34
0.0601	628	365	0.185	42.93
0.0470	728	-	0.165	57.23

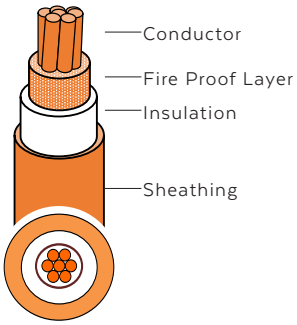
SHAPE OF CONDUCTOR

1.5 - 6 sqmm Circular
10 - 400 sqmm Compacted Round

FIRE RESISTANT CABLE (BS SPECIFICATION)

ONE CORE — COPPER, MICA GLASS TAPE, XLPE INSULATED, NON-ARMOURED, PVC SHEATHED CABLE

600/1000V, CU / MGT / XLPE / PVC



STANDARD SPECIFICATION	IEC 60502-1, IEC60331, BS6387 CWZ
CABLE DESCRIPTION	Copper Conductor, Mica Glass Tape, XLPE Insulated, Non-Armoured, PVC Sheathed Cables - 1 Core
CABLE SIZES RANGE	1 Core x (1.5 - 630)mm²
INSULATION COLOURS	Orange, other colours is available upon request.

APPLICATION

For general purpose internal wiring of electronic and electrical equipment, installation in surface mounted or embedded conduits or similiar closed systems. Commonly use for protected installation in or on lighting fitting inside electronic, eletrical appliances, switchgear and control gear. Uniform insulation thickness of wire to ensure easy stripping and cutting.

SPECIAL FEATURE ON REQUEST

- UV Resistance
- Anti Termite
- Anti Rodent
- Low Smoke Zero Halogen (IEC 60754, IEC 61034)
- Flame Retardant Cat A, B, C (IEC 60332-3)

STANDARD PACKING

Our fire resistant cable standard packing varies according to sizes, please get in touch with our salesperson for the specific fire resistant cable's standard packing list.

CONSTRUCTION DATA

Number of Core	Nominal Sectional Area	Conductor Diameter (Approx)	Nominal Insulation Thickness	Nominal Outer Sheath Thickness	Overall Diameter (Approx)	Cable Copper Weight (Approx)
Nos	mm²	mm	mm	mm	mm	kg/km
1	1.5	1.59	0.70	1.40	7.0	57
	2.5	2.01			7.4	69
	4	2.55			8.0	88
	6	3.12			8.5	112
	10	3.80			9.2	156
	16	4.74			10.2	220
	25	5.97	0.90		11.8	339
	35	7.10			12.9	442
	50	8.10	1.00		14.1	581
	70	9.74	1.10	1.45	16.1	816
	95	11.46		1.55	18.0	1094
	120	12.93	1.20	1.60	19.8	1372
	150	14.33	1.40	1.65	21.7	1447
	185	16.05	1.60	1.70	23.9	2139
	240	18.43	1.70	1.80	26.7	2747
	300	20.64	1.80	1.85	29.2	3445
	400	23.34	2.00	2.00	32.6	4421
	500	26.21	2.20	2.10	36.0	5572
	630	29.80	2.40	2.25	40.3	7230

ELECTRICAL DATA

Max. Conductor Resistance. DC at 20°C	Current Carrying Capacity In Air at 30°C	Voltage Drop	Short Circuit Current for 1 sec
Ω/km	A	mV/A/m	kA
12.10	-	27	0.21
7.41		16	0.36
4.61		10	0.57
3.08		6.8	0.86
1.83		4	1.43
1.15		2.5	2.29
0.727	135	1.60	3.58
0.524	169	1.15	5.01
0.387	207	0.87	7.15
0.268	268	0.61	10.02
0.193	328	0.45	13.59
0.153	383	0.37	17.17
0.124	444	0.31	21.46
0.0991	510	0.26	26.47
0.0754	607	0.22	34.34
0.0601	703	0.195	42.93
0.0470	823	0.175	57.23
0.0366	946	0.160	71.54
0.0283	1088	0.150	90.14

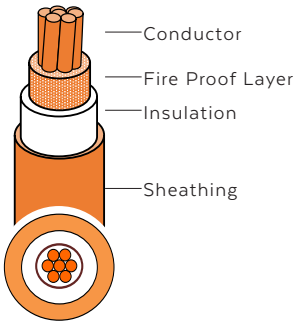
SHAPE OF CONDUCTOR

1.5 - 6 sqmm Circular
10 - 630 sqmm Compacted

FIRE RESISTANT CABLE (BS SPECIFICATION)

ONE CORE – COPPER, MICA GLASS TAPE, XLPO INSULATED, NON-ARMOURED, LSOH SHEATHED CABLE (FRMI)

600/1000V, CU / MGT / XLPO / LSOH



STANDARD SPECIFICATION	IEC 60502-1, IEC60331, BS6387 CWZ, IEC60754, IEC61034, IEC60332
CABLE DESCRIPTION	Copper Conductor, Mica Glass Tape, XLPO Insulated, Non-Armoured, LSOH Sheathed Cables - 1 Core
CABLE SIZES RANGE	1 Core x (1.5 - 630)mm²
INSULATION COLOURS	Orange, other colours is available upon request.

APPLICATION

For general purpose internal wiring of electronic and electrical equipment, installation in surface mounted or embedded conduits or similiar closed systems. Commonly use for protected installation in or on lighting fitting inside electronic, eletrical appliances, switchgear and control gear. Uniform insulation thickness of wire to ensure easy stripping and cutting.

SPECIAL FEATURE ON REQUEST

- UV Resistance
- Anti Termite
- Anti Rodent
- Low Smoke Zero Halogen (IEC 60754, IEC 61034)
- Flame Retardant Cat A, B, C (IEC 60332-3)

STANDARD PACKING

Our fire resistant cable standard packing varies according to sizes, please get in touch with our salesperson for the specific fire resistant cable's standard packing list.

CONSTRUCTION DATA

Number of Core	Nominal Sectional Area	Conductor Diameter (Approx)	Nominal Insulation Thickness	Nominal Outer Sheath Thickness	Overall Diameter (Approx)	Cable Copper Weight (Approx)
Nos	mm²	mm	mm	mm	mm	kg/km
1	1.5	1.59	0.70	1.40	7.0	61
	2.5	2.01			7.4	74
	4	2.55			8.0	93
	6	3.12			8.5	118
	10	3.80			9.2	163
	16	4.74			10.2	227
	25	5.97	0.90		11.8	350
	35	7.10			12.9	455
	50	8.10	1.00		14.1	597
	70	9.74	1.10	1.45	16.1	836
	95	11.46		1.55	18.0	1117
	120	12.93	1.20	1.60	19.8	1401
	150	14.33	1.40	1.65	21.7	1484
	185	16.05	1.60	1.70	23.9	2185
	240	18.43	1.70	1.80	26.7	2803
	300	20.64	1.80	1.85	29.2	3511
	400	23.34	2.00	2.00	32.6	4503
	500	26.21	2.20	2.10	36.0	5672
	630	29.80	2.40	2.25	40.3	7353

ELECTRICAL DATA

Max. Conductor Resistance. DC at 20°C	Current Carrying Capacity In Air at 30°C	Voltage Drop	Short Circuit Current for 1 sec
Ω/km	A	mV/A/m	kA
12.10	-	27	0.21
7.41	-	16	0.36
4.61	-	10	0.57
3.08	-	6.8	0.86
1.83	-	4	1.43
1.15	-	2.5	2.29
0.727	135	1.60	3.58
0.524	169	1.15	5.01
0.387	207	0.87	7.15
0.268	268	0.61	10.02
0.193	328	0.45	13.59
0.153	383	0.37	17.17
0.124	444	0.31	21.46
0.0991	510	0.26	26.47
0.0754	607	0.22	34.34
0.0601	703	0.195	42.93
0.0470	823	0.175	57.23
0.0366	946	0.160	71.54
0.0283	1088	0.150	90.14

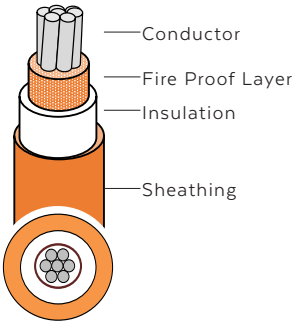
SHAPE OF CONDUCTOR

1.5 - 6 sqmm Circular
10 - 630 sqmm Compacted

FIRE RESISTANT CABLE (BS SPECIFICATION)

ONE CORE — ALUMINIUM, MICA GLASS TAPE, XLPO INSULATED, NON-ARMOURED, LSOH SHEATHED CABLE

600/1000V, AL / MGT / XLPO / LSOH



STANDARD SPECIFICATION	IEC 60502-1, IEC60331, BS6387 CWZ, IEC60754, IEC61034, IEC60332
CABLE DESCRIPTION	Aluminium Conductor, Mica Glass Tape, XLPO Insulated, Non-Armoured, LSOH Sheathed Cables - 1 Core
CABLE SIZES RANGE	1 Core x (1.5 - 630)mm²
INSULATION COLOURS	Orange, other colours is available upon request.

APPLICATION

For general purpose internal wiring of electronic and electrical equipment, installation in surface mounted or embedded conduits or similiar closed systems. Commonly use for protected installation in or on lighting fitting inside electronic, eletrical appliances, switchgear and control gear. Uniform insulation thickness of wire to ensure easy stripping and cutting.

SPECIAL FEATURE ON REQUEST

- UV Resistance
- Anti Termite
- Anti Rodent
- Low Smoke Zero Halogen (IEC 60754, IEC 61034)
- Flame Retardant Cat A, B, C (IEC 60332-3)

STANDARD PACKING

Our fire resistant cable standard packing varies according to sizes, please get in touch with our salesperson for the specific fire resistant cable's standard packing list.

CONSTRUCTION DATA

Number of Core	Nominal Sectional Area	Conductor Diameter (Approx)	Nominal Insulation Thickness	Nominal Outer Sheath Thickness	Overall Diameter (Approx)	Cable Aluminium Weight (Approx)
Nos	mm²	mm	mm	mm	mm	kg/km
1	16	4.74	0.70	1.40	10.2	125
	25	5.97	0.90		11.8	188
	35	7.10			12.9	230
	50	8.10	1.00		14.1	293
	70	9.74	1.10	1.45	16.1	397
	95	11.46		1.55	18.0	507
	120	12.93	1.20	1.60	19.8	630
	150	14.33	1.40	1.65	21.7	713
	185	16.05	1.60	1.70	23.9	998
	240	18.43	1.70	1.80	26.7	1263
	300	20.64	1.80	1.85	29.2	1552
	400	23.34	2.00	2.00	32.6	1998
	500	26.21	2.20	2.10	36.0	2514
	630	29.80	2.40	2.25	40.3	3245

ELECTRICAL DATA

Max. Conductor Resistance. DC at 20°C	Current Carrying Capacity In Air at 30°C	Voltage Drop	Short Circuit Current for 1 sec
Ω/km	A	mV/A/m	kA
1.91	-	-	1.51
1.200			2.36
0.868			3.31
0.641	159	1.45	4.72
0.443	206	0.98	6.61
0.320	253	0.73	8.98
0.253	296	0.59	11.34
0.206	343	0.47	14.17
0.164	395	0.39	17.48
0.125	471	0.32	22.68
0.1000	544	0.270	28.35
0.0780	638	0.230	37.79
0.0605	743	0.200	47.24
0.0469	849	0.185	59.52

SHAPE OF CONDUCTOR

16 - 630 sqmm Compacted Round

IEC 60331

TEST METHOD

Flame of 750°C and test voltage of the rated voltage of the cable shall be applied for 90 min with 15 min of cooling period.

PERFORMANCE REQUIREMENT

The voltage is maintained and the conductor does not rupture.

IEC 60332 - 1

TEST METHOD

The cable being aflamed with propane-airburner (1 kW flame) for specified time related to overall diameter

$\Phi \leq 25$	60s
Φ 25 - 50	120s
Φ 51 - 75	240s
$\Phi \geq 75$	480s

PERFORMANCE REQUIREMENT

The carbonisation not exceeding 50mm

IEC 60332 - 3

TEST METHOD

Cat. A	Non-metallic volume per meter of specimen (7 litre)
Cat. B	Non-metallic volume per meter of specimen (3.5 liter)
Cat. C	Non-metallic volume per meter of specimen (1.5 liter)

PERFORMANCE REQUIREMENT

The charred portion should be less than 2.5m

IEC 60754

TEST METHOD

STEP 1

Specimen being placed in "combustion boat" (76x15x10 mm) and heated at temperature of 800 ± 10OC for 20 minutes.

STEP 2

Amount of halogen acid, is expressed in milligrams of hydrochloric acid per gram:

$$\% \text{ Weight} = \frac{(36.5 \times (B-A) \times M \times 1000/200)}{m} \times 100$$

STEP 3

The pH value and conductivity are calculated as below:

$$pH = \log_{10} \frac{\Sigma i w_i}{\Sigma i (w_i / 10^x)}$$

$$\text{Conductivity} = \frac{\Sigma i c \times w_i}{\Sigma i w_i}$$

PERFORMANCE REQUIREMENT

The carbonisation not exceeding 50mm

A = volume of 0.1M ammonium thiocyanate solution used in the test
B = volume of 0.M ammonium thiocynate solution used in the blank test
m = mass of the sample taken grams
M = molarity of ammonium thiocynate solution

x = pH value of each non-metallic material i
c = conductivity of each non-metallic material i
w_i = weight of each metallic material i per unit length of the cable

IEC 60331

TEST METHOD

STEP 1

A 1 meter sample of cable is placed in a 3m smoke chamber. The sample is subjected to the flame burning alcohol.

STEP 2

The smoke produced in the chamber is measured by a photocell.

PERFORMANCE REQUIREMENT

The minimum light transmittance recorded should be 60%.

BS 6387

TEST METHOD

Cat. C	Flame of 950°C and test voltage of the rated voltage of the cable shall be applied for 3 hour.
Cat. 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.
Cat. 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.

PERFORMANCE REQUIREMENT

The voltage is maintained and the conductor does not rupture.

HEAD OFFICE & FACTORY

Lot 42, Jalan Merbau Pulas,
Kawasan Perusahaan Kuala Ketil,
09300 Kuala Ketil, Baling, Kedah.

CUSTOMER SERVICE

+6 03 6151 1601

sc@southerncable.com.my

@southerncable

QUALITY ACCREDITATION

MS ISO 9001:2015
QMS 00688

SNI 04-6629.3-2006
NPB 104-124-191551

SOUTHERNCABLE.COM.MY