

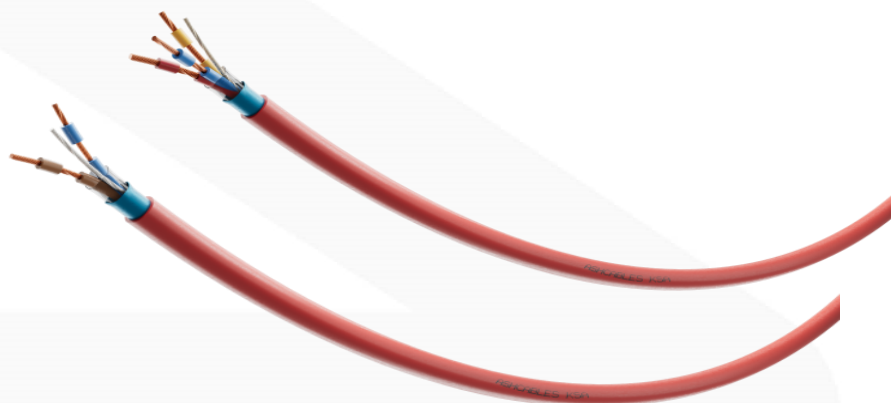
## ASH RESIST MULTI CORES CU/SIL/SHIELDED/LSZH 300/500 V STANDARD FIRE-RESISTANT CABLES

### APPLICATION:

- Used in standard Fire Alarm Systems & Emergency Lighting (Circuit Integrity During Fire Conditions)
- Voice alarm systems and emergency voice communication, Emergency and escape lighting and other standard Fire Resistance requirement.
- Emits limited amount of smoke and corrosive gases when burned as measured by a standard test.

### CONSTRUCTION DETAILS

<b>Reference Standard</b>	Generally, BS 7629-1, IEC 60331, BS 6387 CAT CWZ, BS EN 50200, IEC 60332-1	
<b>Rated voltage</b>	300 / 500V	
<b>Conductor Material</b>	Plain annealed Copper to ASTM B3, Solid conductor Class (1) of BS EN 60228. Sizes: (1 mm <sup>2</sup> , 1.5 mm <sup>2</sup> , 2.5 mm <sup>2</sup> ) Stranded conductor Class (2) of BS EN 60228. Sizes: (1 mm <sup>2</sup> , 1.5 mm <sup>2</sup> , 2.5 mm <sup>2</sup> , 4mm <sup>2</sup> )	
<b>Conductor Insulation</b>	Extruded ceramifiable Silicon Rubber (SR)	
<b>Insulation color</b>	<b>No. of cores</b>	<b>Core Identification</b>
	2 Cores	Red, Black
	3 Cores	Red, Yellow, Blue
	4 Cores	Red, Yellow, Blue, Black
<b>Assembly</b>	Insulated conductors are laid up to form a core and non-hygroscopic filler (if required)	
<b>Overall Shield (OS)</b>	Aluminum-backed Mylar tape (Al-Pet Foil) is applied over the assembly (100% coverage) with Tinned copper drain wire. Drain wire size: 0.50 mm <sup>2</sup> (Class 1 or Class 2 of BS EN 60228)	
<b>Outer Sheathing</b>	Extruded Low Smoke Zero Halogen (LSZH) compound. The color is Red or White. (or as per customer request)	
<b>Marking (Printing)</b>	Table 1, Table 2	
<b>Cable drawing</b>	Figure 1 and Figure 2	



### ELECTRICAL PROPERTY

	1.5 MM2	2.5 MM2	4 MM2	
<b>Conductor DC Resistance @ 20°C</b>	≤12.10	≤7.41	≤4.61	<b>(Ω/km)</b>
<b>Capacitance @ 1 KHz</b>	<b>CORE TO CORE</b>	≤110	≤120	≤150
	<b>CORE TO SHIELD</b>	≤180	≤200	≤250
<b>Inductance to Resistance ratio (L/R)</b>	≤40	≤ 60	≤80	<b>(μH/Ω)</b>
<b>Insulation Resistance</b>	≥ 100 MΩ/km			
<b>Voltage Test</b>	2000 V for 1 minute.			

### FLAME BEHAVIOUR, MECHANICAL & ENVIRONMENTAL PROPERTY

<b>Operating Temperature</b>	-20°C to +90°C
<b>Bending Radius</b>	10 X Cable Outer Diameter
<b>Flame Retardance</b>	Pass Flammability Test Requirement of IEC 60332-1, IEC 60332-3 CAT C
<b>Fire Resistant</b>	IEC 60331, BS 6387 Cat. CWZ (for time of 3 hours up to 950°C)
<b>BS EN 50200</b>	PH30, PH60, PH120
<b>Halogen Acid Gases</b>	≤0.5% to IEC 60754-1
<b>Light Transmit</b>	60% to IEC61034
<b>Oxygen Index</b>	30% to ASTM D 2863

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### DIMENSIONAL DATA SHEET

Table 1

Solid conductor Class (1) of BS EN 60228. Sizes: (1 mm<sup>2</sup>, 1.5 mm<sup>2</sup>, 2.5 mm<sup>2</sup>)

S/N	ASH CABLES ITEM CODE	No. of cores X Size (mm <sup>2</sup> )	NOM. INSULATION THICKNESS (mm)	NOM. OUTER SHEATH THICKNESS (mm)	APPRX. CABLE DIAMETER (mm)	Approx. Cable Weight (kg/km)	Standard Length (m) ± 5%
1	F41L-02C00100-URD6G	2C X 1.0 (1x1.13 mm)	0.60	0.90	7.30	70	500 / 1000
2	F41L-02C00150-URD6G	2C X 1.50 (1x1.38mm)	0.70	0.90	8.20	95	500 / 1000
3	F41L-02C00250-URD6G	2C X 2.50 (1x1.78mm)	0.80	1.00	9.50	140	500 / 1000
4	F41L-03C00150-URD6G	3C X 1.50 (1x1.38mm)	0.70	0.90	8.50	120	500 / 1000
5	F41L-03C00250-URD6G	3C X 2.50(1x1.78mm)	0.80	1.00	10.20	175	500 / 1000
6	F41L-04C00150-URD6G	4C X 1.50(1x1.38mm)	0.70	1.00	9.50	145	500 / 1000
7	F41L-04C00250-URD6G	4C X 2.50 (1x1.78mm)	0.80	1.00	11.00	215	500 / 1000
Cable Marking		ASHRESIST (F41L) (no. of cores) X (size) MM2 CU/SR/OS/LSZH 300/500V BS 7629-1 BS 6387 CWZ IEC 60331 EN50200 PH120 LPCB 711e-(cl-4)/01 ASHCABLES KSA (YEAR OF MANUFACTURE) (METER MARKING)					

Table 2

Stranded conductor Class (2) of BS EN 60228. Sizes: (1 mm<sup>2</sup>, 1.5 mm<sup>2</sup>, 2.5 mm<sup>2</sup>, 4 mm<sup>2</sup>)

S/N	ASH CABLES ITEM CODE	No. of cores X Size (mm <sup>2</sup> )	NOM. INSULATION THICKNESS (mm)	NOM. OUTER SHEATH THICKNESS (mm)	APPRX. CABLE DIAMETER (mm)	Approx. Cable Weight (kg/km)	Standard Length (m) ± 5%
1	F43L-02C00100-URD6G	2C X 1.0 (7x0.44 mm)	0.60	0.90	7.50	72	500 / 1000
2	F43L-02C00150-URD6G	2C X 1.50 (7x0.525 mm)	0.70	0.90	8.50	100	500 / 1000
3	F43L-02C00250-URD6G	2C X 2.50 (7x0.67 mm)	0.80	1.00	10.00	145	500 / 1000
4	F43L-02C00400-URD6G	2C X 4.0 (7x0.84 mm)	0.80	1.10	11.00	200	500 / 1000
5	F43L-03C00150-URD6G	3C X 1.50 (7x0.525 mm)	0.70	0.90	9.00	125	500 / 1000
6	F43L-03C00250-URD6G	3C X 2.50 (7x0.67 mm)	0.80	1.00	10.50	180	500 / 1000
7	F43L-03C00400-URD6G	3C X 4.0 (7x0.84 mm)	0.80	1.10	12.20	260	500 / 1000
8	F43L-04C00150-URD6G	4C X 1.50 (7x0.525 mm)	0.70	1.00	10.00	155	500 / 1000
9	F43L-04C00250-URD6G	4C X 2.50 (7x0.67 mm)	0.80	1.00	11.50	220	500 / 1000
10	F43L-04C00400-URD6G	4C X 4.0 (7x0.84 mm)	0.80	1.20	13.50	330	500 / 1000
Cable Marking		ASHRESIST (F43L) (no. of cores) X (size) MM2 CU/SR/OS/LSZH 300/500V BS 7629-1 BS 6387 CWZ IEC 60331 EN50200 PH120 LPCB 711e-(cl-4)/01 ASHCABLES KSA (YEAR OF MANUFACTURE) (METER MARKING)					

<b>PACKING</b>	500/1000 mts in cable Wooden Drum or any other customer requirement
	Each reels/drum shall be marked with ASH cables standard practice.