

FRLS (FIRE RETARDANT LOW SMOKE) **MULTI STRAND** single core



BIO CAB FRLS

- Special Heat Resistant and Flame Retardant Low Smoke (FRLS) INSULATION.
- Higher Current Rating
- Higher Temperature Rating
- Applications : Suitable for use in conduit and for fixed protected insulation. Particularly suitable for wiring in fire and explosion prone areas, chemical factories, densely wired areas, public buildings, schools, hospitals, commercial complexes, theatres etc.
- Specifications : Generally conforms to, IS: 694, IEC: 60754-1 IS: 8130 & IS: 5831.
- Conductor : Many thin strands of Electrolytic Copper are fine-drawn simultaneously for uniformity of Resistance, Dimension and Flexibility. The Drawn strands are twisted in high precision machines and compacted. This not only imparts circularity to the cable is bent during but also prevents the tendency of the strands to separate and exert internal pressure on the insulation when the cable is bent during installation and usage.
- Insulation : Specially formulated high temperature grade of Flame Retardant Low Smoke compound restricts the spread of flames in a fire situation. FRLS Cables produce very less smoke during burning as compared to general purpose cables. This ensures improved visibility for evacuation of trapped victims and facilitates fire-fighting operations.
- Marking : The cables are printed with generic marking 'BIO CAB - FRLS (size) 1100 IS 694
- Colours : Double strips of Silver Gray or bright orange on base colour Red, Yellow, Blue, Black and Green running along the length of the cable.

Sizes, Construction and Currant Ratings

Conductor Area Sq. mm	Insulation Thickness mm	Number of strands/ Nominal Dia, of Strands	Max. Overall Diameter mm	Conductor Resistance Ohm/km at 20°C(Max)	Current Rating Amps. Casting	Concealed
1.00	0.7	14/0.3	2.8	18.10	14	13
1.50	0.7	22/0.3	3.1	12.10	18	16
2.50	0.8	36/0.3	3.8	7.41	24	20
4.00	0.8	56/0.3	4.4	4.95	32	26

Electrical safety depends on five characteristics

- Smoke
- Hazardous gas generation
- Rate of heat release
- Flame spread
- Rate of burning

FR Properties

Properties	Test method	Value
Limited Oxygen Index	ASTM - D 2863	>29%
Temperature Index	ASTM - D 2863	>250°C
Smoke Density (Light absorption)	ASTM - D 2843	>60%

In case of fire in a closed space, trapped people are unable to find the exit due to emission of thick black smoke and lose consciousness due to the inhalation of toxic fumes before they can be evacuated to safety.

The advantages of low smoke and low acid gas generation are additional and critical features available with BIO CAB FRLS wires in comparison with FR (Flame Retardant) wires which do not provide these properties.

FLAME RETARDANT
LOW SMOKE
AND V.I.R. CABLE



FRLS (FIRE RETARDANT LOW SMOKE) **MULTI STRAND** single core unsheathed flexible cables in voltage grade upto and including 1100 V.