



FLAM-GUARD FIRE RESISTANT CABLES



BCC

BRITISH CABLES COMPANY

PERFORMANCE UNDER FIRE CONDITIONS

‘Standard’ Cables – Requirements

‘Standard’ cables are required to meet the below circuit integrity requirements;
A minimum 30-minute survival time when tested to BS EN 50200 (PH 30) for fire alarm circuits or minimum 60-minute survival time (PH 60), for emergency lighting circuits.
‘Standard’ cables must also meet the requirements of BS EN 50200 Annex E.

Test	Description	Temperature	Test Duration
BS EN 50200 (PH30)	Resistance to Fire and Mechanical Shock	830°C	30 Mins Fire with Mechanical Shock
BS EN 50200 (PH60)	Resistance to Fire and Mechanical Shock	830°C	1 Hour Fire with Mechanical Shock
BS EN 50200 (Annex E)	Resistance to Fire, Mechanical Shock & Water	830°C	15 Mins Fire with Mechanical Shock + 15 Mins Fire, Mechanical Shock and Water Spray

‘Enhanced’ Cables – Requirements

‘Enhanced’ cables are required to meet the below circuit integrity requirements;
A minimum 120-minute survival time when tested to BS EN 50200 (PH 120) for both fire alarm circuits and emergency lighting circuits.
‘Enhanced’ cables must also meet the requirements of BS 8434-2.

Test	Description	Temperature	Test Duration
BS EN 50200 (PH120)	Resistance to Fire & Mechanical Shock	830 °C	2 Hours Fire with Mechanical Shock
BS 8434-2	Resistance to Fire, Mechanical Shock & Water	930 °C	1 Hour Fire with Mechanical Shock + 1 Hour Fire, Mechanical Shock and Water Spray



FLAM-GUARD 100 (FG100) SINGLE CORE FIRE RESISTANT CABLE

Key Applications:	Single core fire resistant cable designed for use in steel conduit installations in which the conduit provides mechanical protection. Designed for use in fire evacuation systems such as fire detection, fire alarm and emergency lighting circuits.
Voltage Rating:	600 /1000V
Colours:	Blue, Brown, Green/Yellow. Other colours available on request
Supplied Lengths:	100 and 500 metre drums. Other lengths available on request
Approvals:	LPCB approved to BS 6387 CWZ when tested in a metal conduit and below requirements.
Fire Resistance:	Complies with IEC60331 and BS 6387 CWZ when tested in a steel conduit
Smoke Emission:	Complies with low smoke emissions to BS EN 61034
Acid Gas:	Acid gas emissions to BS EN 50267 (HCL level <0.5%)
Flame Retardance:	BS EN 60332-1-2

Area mm ²	Conductor No. of Strands (mm)	Nominal Cable Diameter (mm)	Conductor Resistance ohm/km @20°C
1.5	7 / 0.53	3.3	12.1
2.5	7 / 0.67	3.75	7.41
4.0	7 / 0.85	4.3	4.61
6.0	7 / 1.04	5.0	3.08
10.0	7 / 1.35	6.8	1.83
16.0	7 / 1.7	7.20	1.15

FLAM-GUARD STANDARD 200 (FG200)

Key Applications:	Fire Alarms for buildings and control circuits for fire safety systems, including IS 3218:2013 Emergency lighting systems, BS 5266-1:2011 and IS3217:2013; Voice alarm and emergency voice communications systems, BS5839-8:2013 and BS 5839-9:2013; Data and Control circuits for other 'Standard' applications requiring fire resistance.
Voltage Rating:	300 /500V
Colours:	White and Red sheath as standard. Other colours available on request
Supplied Lengths:	100 and 500 metre drums. Other lengths available on request
Approvals:	LPCB and BASEC Approval

No of Conductors	Nominal Cross-Sectional Area (mm ²)	Nominal Radial Thickness Insulation (mm)	Nominal Radial Thickness Sheath (mm)	Approximate Overall Diameter (mm)	Maximum Conductor Resistance at 20°C (ohms/km)	Nominal Weight (kg/km)
2	1.5	0.70	0.90	8.50	12.10	93.00
2	2.5	0.80	1.00	10.50	7.41	135.00
2	4.0	0.80	1.10	12.50	4.61	190.00
3	1.5	0.70	0.90	9.50	12.10	130.00
3	2.5	0.80	1.00	11.50	7.41	180.00
3	4.0	0.80	1.10	13.50	4.61	250.00
4	1.5	0.70	1.00	10.50	12.10	150.00
4	2.5	0.80	1.10	12.00	7.41	210.00
4	4.0	0.80	1.20	15.00	4.61	330.00

FLAM-GUARD ENHANCED 300 (FG300)

Key Applications:

Enhanced' fire resistance is recommended in systems and buildings in which cables need to operate correctly during a fire for longer than required for single phase evacuation. Examples: Unsprinkled high-rise buildings with phased evacuation arrangements; premises of such a nature/size that areas remote from the fire could be occupied for a prolonged period during a fire, any location where system integrity is essential in severe conditions. Fire Alarms for buildings and control circuits for fire safety systems, including IS 3218:2013; Emergency lighting systems, BS 5266-1:2011 and IS3217:2013; Voice alarm and emergency voice communications systems, BS5839-8:2013 and BS 5839-9:2013; Data and Control circuits for other 'Enhanced' applications requiring fire resistance.

Voltage Rating:

300 /500V

Colours:

White and Red sheath as standard. Other colours available on request

Supplied Lengths:

100 and 500 metre drums. Other lengths available on request

Approvals:

LPCB and BASEC Approval

No of Conductors	Nominal Cross-Sectional Area (mm ²)	Nominal Radial Thickness Insulation (mm)	Nominal Radial Thickness Sheath (mm)	Approximate Overall Diameter (mm)	Maximum Conductor Resistance at 20° C (ohms/km)	Nominal Weight (kg/km)
2	1.5	0.70	0.90	8.50	12.10	93.00
2	2.5	0.80	1.00	10.50	7.41	135.00
2	4.0	0.80	1.10	12.50	4.61	190.00
3	1.5	0.70	0.90	9.50	12.10	130.00
3	2.5	0.80	1.00	11.50	7.41	180.00
3	4.0	0.80	1.10	13.50	4.61	250.00
4	1.5	0.70	1.00	10.50	12.10	150.00
4	2.5	0.80	1.10	12.00	7.41	210.00
4	4.0	0.80	1.20	15.00	4.61	330.00

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