Fire Safety Engineering: Applications that require cable to comply with BS8519-2010 (previously BS7346-6)

120min requirement
Smoke suppression systems - extraction / barriers / curtains / dampers

120min requirement
Wet riser pumps

120min requirement
Watermist / Powder / Sprinkler systems

120min requirement
Positive pressurisation systems

Power supplies - Primary and Secondary

120min requirement
Fire/Smoke Barriers

120min requirement
Fire fighting lifts

See overleaf for comprehensive matrix of performance requirements

FTP120
FIRETUF
POWERPLUS BS8519-2010

BUILDING REGULATIONS APPROVED - DOCUMENT B

DOES YOUR INSTALLATION COMPLY TO THE FIRE SAFETY ENGINEERING REQUIREMENTS?

ENSURE COMPLIANCE WITH FTP120

LPCB TESTED & CERTIFIED BASEC

To support modern Fire Engineering system's in today's buildings – specify FTP120 from Draka. FTP120 is the market leading steel wire armoured power cable that provides enhanced fire performance to meet the onerous requirements of BS8519-2010 - previously BS7346-6. LPCB approved across it's entire size range for 2, 3, and 4 core cables and compliant with Approved Document B of the Building Regulations, it's the ideal solution for ensuring that life safety, fire fighting and property protection systems maintain functionality in the event of a fire.

COMPLIANT WITH BUILDING REGULATIONS PART B

Draka

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* LPCB approved 2, 3 and 4 core, 4mm-400mm² as of February 2009

FTP120 ENHANCED FIRE PERFORMANCE POWER CABLE

The Selection and Installation of Fire Resistant Power and Control Cable Systems for Life Safety and Fire Fighting Applications

The increased prevalence of fire safety engineering (FSE) principles has meant that the systems they rely upon to increase timings for evacuation and fire fighting scenarios have to be more and more robust. This in turn means that they are increasingly reliant on the cables that supply them with the power to do the job of which they are required. The advent of BS 7346-6 in 2005 brought about a huge evolution in power cable performance, moving from individual tests for fire, fire and indirect impact and fire and low pressure water application to an integrated test regime involving Fire, direct impact and high pressure water application (equivalent to firemans hose). The below explanations detail the time requirements for fire resistance within BS 8519-2010, with the below matrix detailing examples of the FSE applications that these cables need to supply.

Category 1 - Means of Escape (30 mins Survival Time)
Power cables meeting the 30min survival time when tested in accordance with BS 8491 (20mm overall diameter and above)

Category 2 - Means of Escape (60 mins Survival Time)
Power cables meeting the 60min survival time when tested in accordance with BS 8491 (20mm overall diameter and above)

Category 3 - Fire Fighting (120 mins Survival Time)
Power cables meeting the 120min survival time when tested in accordance with BS 8491 (20mm overall diameter and above)

Typical Power Applications within BS 8519-2010

Fire Safety Engineering System	Related Standards (A)	Application	Minimum category
Smoke and Heat Control- Fire Fighting	BSEN 12101-3	Powered SHEVs- Supply and Control	2 or 3
Sub Main Power Distribution	-	Means of Escape Applications	2
Smoke and Heat Control- Fire Fighting	BSEN 10121-2	(SHEV's)- Supply and Control	2
Smoke and Heat Control- Fire Fighting	-	Chimneys- Controlled MFSD's	2
Means of Escape	BS7346-7	Car Park Smoke Control	2
Means of Escape	BSEN 12101-8*	Smoke Control Dampers- Supply and Control	2
Means of Escape	BSEN 12101-1	Smoke Barriers- Supply and Control	2
Means of Escape	-	Fire Barriers Supply and Control	2
Means of Escape	BSEN 12101-2	Natural SHEV's- Supply and Control	2
Means of Escape	BSEN 12101-3	Powered SHEV's- Supply and Control	2
Means of Escape	BSEN 12101-1	Smoke Curtains- Supply and Control	2
Means of Escape	-	Chimneys-Controlled MFSD's	2
Means of Escape	-	Powered Chimneys and Controlled MFSD's	2
Means of Escape	BSEN 12101-6	Pressurization	2
Means of Escape	BS 7273-4	Powered Sliding Doors	2
Lifts	BS 9999	Evacuation- Lift Supplies	2
Lifts	-	Evacuation- Communication	2
Fire Suppression	BSEN 12094	Gaseous Extinguishing Systems	2
Fire Suppression	BSEN ISO 14520	Gaseous Extinguishing Systems	2
Fire Suppression	BSEN 12416	Powder Systems	2
Fire Suppression	BSEN 13565	Automatic Foam Systems	2
Smoke and Heat Control- Fire Fighting	BS7346-7	Car Park Smoke Control	3
Smoke and Heat Control- Fire Fighting	-	Wiring in other areas of special risk	3
Smoke and Heat Control- Fire Fighting	BSEN 12101-8*	Motorised Fire and Smoke Dampers (MFSD's) - Supply and Control	3
Smoke and Heat Control- Fire Fighting	BSEN 12101-1	Smoke Barriers- Supply and Control	3
Smoke and Heat Control- Fire Fighting	BS8524*	Fire Barriers- Supply and Control	3
Smoke and Heat Control- Fire Fighting	BSEN 12101-1	Smoke Curtains- Supply and Control	3
Smoke and Heat Control- Fire Fighting	BSEN 12101-3	Smoke Fans	3
Smoke and Heat Control- Fire Fighting	-	Powered Chimneys and Controlled MFSD's	3
Smoke and Heat Control- Fire Fighting	BSEN 12101-6	Pressurization	3
Means of Escape	BSEN 12101-3	Smoke Fans	3
Fire Fighting Shafts	BSEN 12101-6	Pressurization	3
Fire Fighting Shafts	-	Smoke Shafts Controlled (MFSD) Dampers	3
Fire Fighting Shafts	-	Powered Smoke Shafts and Controlled MFSD's	3
Lifts	BS 9999	Fire Fighting - Lift Supplies	3
Fire Suppression	DD 8489	Watermist	3
Fire Suppression	BSEN 12845	Sprinkler Pumps	3
Fire Suppression	BS5306-1	Hose Reel Systems	3
Fire Suppression	DDCEN 14816	Water Spray Systems	3
Fire Mains	BS9990	Wet Riser Pumps	3
Fire Mains	-	Valve and Equipment Monitoring	3

*- These publications are in preparation at the time of publication of BS8519-2010.

The fact that these are all power applications means that the time requirement MUST be applied to cables complying to BS8491 (previously BS7346-6). Within BS 8519-2010 there is reference to BSEN50200- this is only in respect to CONTROL cables. At time of press FTP120 is one of the only cables approved by LPCB and BASEC to fulfill the 120 minute requirement. There are (at time of press) no cables which have an approval to the 60 minute requirement alone - the 120 minute approval covers applications for both 60 and 120 minutes.