

 CASE STUDY	Case Study:	Fire-Proof Cladding to Buildings
	Contracted by:	CemPro
	Application:	Cast Concrete Insulated Panels used for Cladding
	Requirements:	Fire-Retardant Cast Cladding Panels
	Solution / Product:	LightCem® FIRESHIELD®™

THE PROBLEM

As a spend to save measure high-rise tower blocks and flats are often upgraded with the fitting of external cladding to enhance thermal insulation as well as aesthetic value. The risk of fire in high-rise flats and tower blocks has resulted in considerable changes to legislation governing the construction of these types of buildings. In particular much emphasis is placed on Fire Containment within the units and the need to minimise the possibility of fire spreading between the various floors in the buildings.

Regulations stress the need to use materials during construction and refurbishment that also offer a degree of fire protection. After a series of significant fires in blocks of flats, one area that is now coming under scrutiny is the increasing use of cladding the outside facades. These can easily become avenues for fire transmission and in some circumstances can turn in to 'blast' channels forcing the fire into otherwise safe areas.

This was one area highlighted by Crown Ventilation, a far sighted company, when designing the refit of various buildings. The brief was simple – prevent fire from spreading in to cladding and so reduce the opportunities for fire to spread.

THE SOLUTION

Many types of cladding and insulation available on the market today are fibre-glass based and should be inherently fire-retardant. What was identified in designing cladding was the requirement for a thin, easily installed, protective covering for these items that would offer at least 2 hours fire protection.

LightCem's FIRESHIELD™ was the ideal solution! Just a 30mm panel of lightweight LightCem FIRESHIELD™ was required to meet the requirement. LightCem FIRESHIELD™ can also be retrospectively applied using 'Dry-Spray' methods elsewhere on other vulnerable areas and structurally critical locations. Spray on coatings can be applied to steels, wood / timber, masonry plastic and even glass.

Documented scientific fire tests show that with exposure to temperatures of over 1000°C, LightCem FIRESHIELD™ prevents pipework etc. from giving way – even those made of plastic! LightCem FIRESHIELD™ cladding in conjunction with fire-proof insulation is a sensible 'spend to save' measure to reduce the effects of fire whenever the inevitable one occurs.



Pre-Cast Wall Panels LightCem FIRESHIELD™ cast products prior to assembly.



Exterior Cladding Examples of where LightCem FIRESHIELD™ panels can be used for exterior cladding.



"The use of LightCem FIRESHIELD is the ideal solution for cladding exteriors and enhancing fire protection to vulnerable areas".

Mr SK,
MD
CemPro

LIGHTCEM®

