

Case Study

# Oldway Centre

Swansea, Wales

## AT A GLANCE:

Client: Oldway Swansea Ltd

Partner: WRW Construction Ltd, Sharpfibre Ltd

Sector: Education, student accommodation



## BACKGROUND

The Oldway Centre in Swansea has been a familiar fixture on the city's landscape since it was first built in the early 1960s. The former 13-storey office block is now being converted into modern student accommodation to support the growth of Swansea and Trinity St David Universities.

Once complete, the refurbished building, which includes a two-storey extension to the old high-street side office block, will provide 556 student bedrooms alongside communal facilities for collaborative working and socialising. This switch from commercial to residential use called for an increase in the fire resistance of the structure's floors from 30 to 120 minutes.

Often, a combination of passive fire protection boards and sprays can be used to achieve this

higher performance. However, the historic design of the Oldway Centre posed its own challenges for the Promat team. Promat worked closely with main contractor, WRW Construction, and installation subcontractor, Sharpfibre, throughout the scheme to develop a passive fire protection solution that would both meet the requirements of the technically challenging build, and protect and provide quality of life for residents.

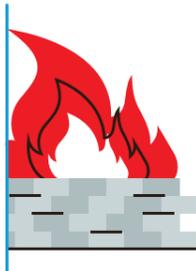
## SPECIFICATION

- 1 **CAFCO® CP2:** a cementitious spray designed especially for increasing the fire resistance of concrete slabs; able to provide up to 240 minutes of fire resistance

Promat's CAFCO sprays have been specifically developed for structure steel fire protection and to upgrade the fire performance of concrete structural elements. In the event of a fire, a chemical reaction takes place, causing the product to expand and form an insulating layer which prevents the temperature of the steel or concrete structure rising to a critical level. They can be used for internal and external applications.

### CAFCO® CP2:

Able to provide up to **240 minutes** of fire resistance



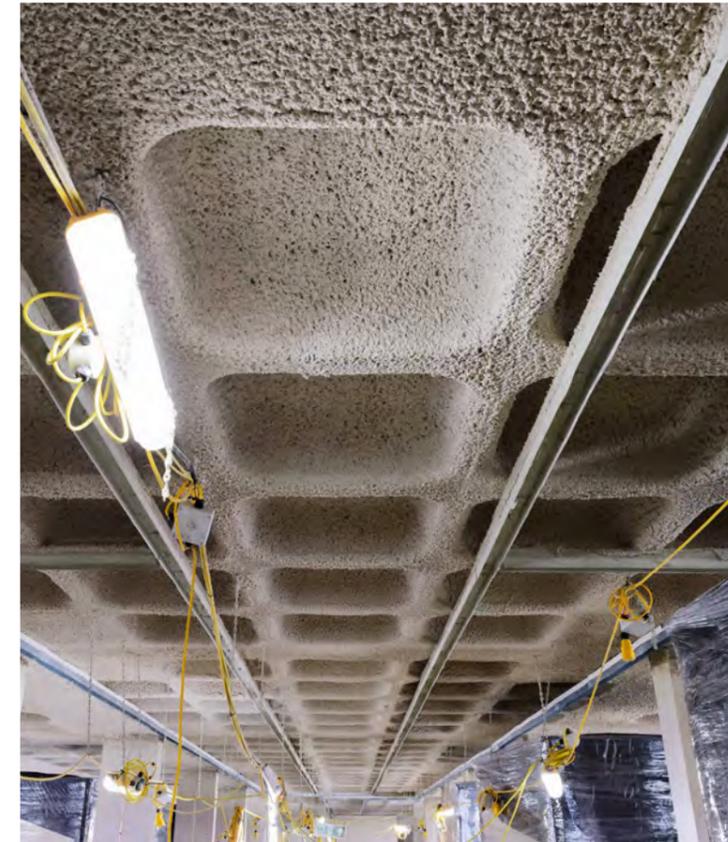
## KEY FACTS AND CHALLENGES

### THE DESIGN CHALLENGES

- Deliver 120 minutes of fire resistance
- Identify a fire protection solution that could be easily applied to the Oldway Centre's coffered slab floors - featuring a series of ribbed and concave sections which meant that rigid protection materials could not be applied
- Bespoke specification needed for the building floors which varied in thickness, calling for different levels of spray protection

### THE CONSTRUCTION CHALLENGES:

- Meet the tight construction timetable to ensure that the Oldway Centre could be reopened in time for the 2019 academic term
- Install the passive fire protection in a timely manner ahead of the scheduled installation of bathroom pods manufactured offsite
- Identify a sustainable installation solution to meet the strict environmental requirements for the scheme
- Ensure a clean interface between the spray and the head tracks of the building's partitions to create a smooth finish with the internal drylining system



## THE INSTALLATION PHASE

To meet the project's fire protection requirements and its design and construction challenges, Promat specified CAFCO® CP2. This cementitious spray is quick to apply with the right expertise.

Promat and Sharpfibre, who are specially trained to apply Promat Cafco products, worked together to determine the level of spray protection needed for the building floors, which varied in thickness. In some areas, the slab was just 80mm wide, requiring

additional treatment to provide the appropriate level of fire resistance.

Sharpfibre also adapted its approach to meet strict environmental requirements for the scheme, re-using the plastic sheeting laid to protect the building interior during application to minimise waste.

### 120 minutes

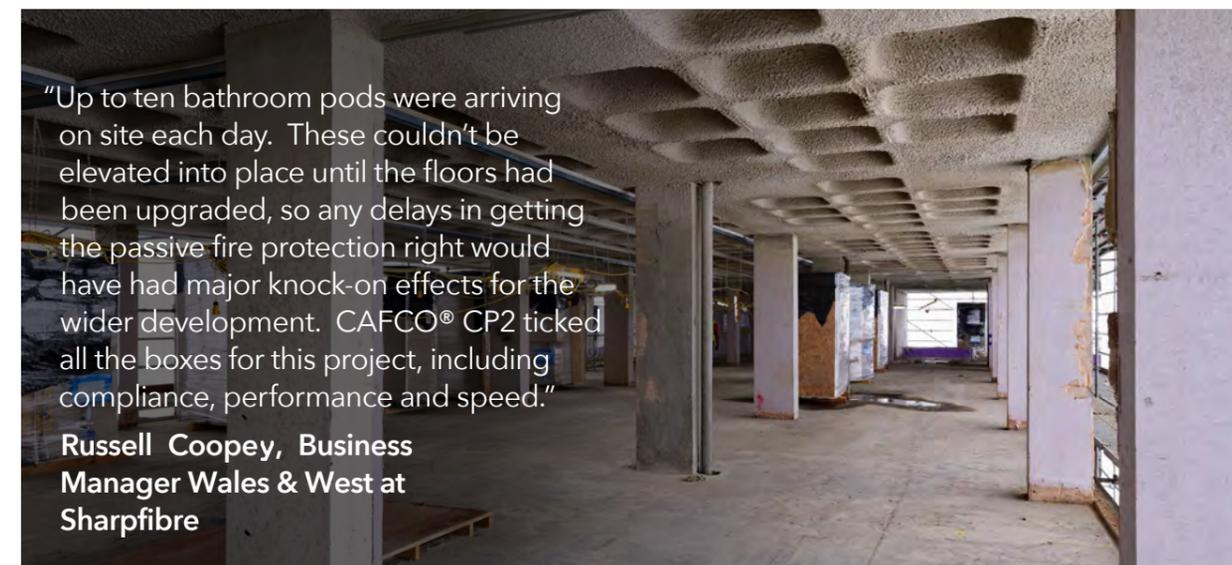
Fire resistance achieved using CAFCO® CP2

### 2 floors per week

Application rate to support the project's tight build schedule and modular construction, allowing for the installation of the new bathroom pods

### 18,000m<sup>2</sup>

Of CAFCO® CP2 applied across the project, providing peace of mind for building users and saving the equivalent of 18,750 fire protection boards



"Up to ten bathroom pods were arriving on site each day. These couldn't be elevated into place until the floors had been upgraded, so any delays in getting the passive fire protection right would have had major knock-on effects for the wider development. CAFCO® CP2 ticked all the boxes for this project, including compliance, performance and speed."

**Russell Coopey, Business Manager Wales & West at Sharpfibre**

## THE RESULTS AND IMPACT

Thanks to the cooperation between the project partners, the Oldway Centre will once again be an important part of Swansea's urban landscape, providing a safe and comfortable home for the next generation studying in the city.

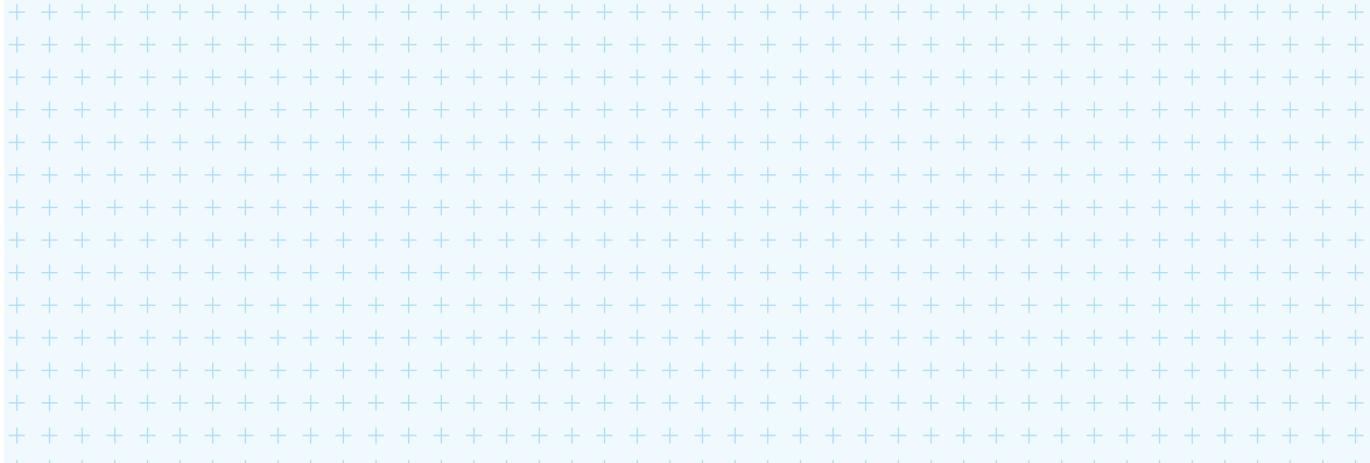


Emblematic of wider investment and development in the area, it is hoped that this scheme will support Swansea's ongoing transformation, kickstarting further projects in the city centre.



"The Oldway Centre scheme will hopefully be a catalyst for other regeneration projects within Swansea city centre. The region itself is undergoing significant transformation and it's exciting to be at the forefront in delivering Swansea's largest student accommodation development to date"

**Chris Evans, Director, Lawray Architects**



To see how CAFCO® CP2 can benefit your next project, call our Technical Services team on 0800 145 6033.

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