

It's just a Wall... Isn't it?

The trend to use composite panel walls in modern warehouse construction offers real advantages to stakeholders, even in firewall applications. But Adrian Smith, Managing Director of the Firewall Division and Chief Technical Officer of ISD Solutions, a specialist in warehouse and firewall construction, warns poor awareness of product and installation standards puts stakeholders at risk.

From cold stores to distribution centres, the use of composite panel construction across the warehouse sector

is growing rapidly, fast replacing traditional masonry and concrete. It's lightweight and tremendously durable, with significantly improved thermal properties. What's more, build times are reduced, construction costs are lower and maintenance is easier. Compared to concrete, the carbon footprint is lower too.

No wonder then that we are seeing more and more warehouses built in this way. Shiny and new they might be, but to most of us it's just a wall, and we rarely give it a second thought.

However, one aspect that the warehouse owner must give due attention to, is fire safety. Limiting fire and smoke damage is a crucial aspect of any design, partly to protect contents and infrastructure but, above all, to meet legal responsibilities to employees - responsibilities that are clearly set out in the Regulatory Reform (Fire Safety) Order 2005.

Fire compartmentation, the subdivision of a building into areas of manageable risk, with adequate means of escape, as well as fire separation for adjoining buildings or offices, is therefore a vital consideration.

Modern steel-faced composite panels, with non-combustible mineral fibre cores, offer excellent fire resistance and are used successfully for internal



walls or whole buildings, offering fire resistance from 60 to 240 minutes where needed. ISD for example, has been successfully installing composite firewall systems to protect buildings and contents for over 15 years.

However, evidence suggests that some developers are unwittingly using materials that do not have LPCB accreditation, so are below quality. More worryingly, we believe that most warehouses, perhaps up to 90%, have firewalls and compartmentation that may fail, given a real incident. This is not surprising given the downward pressure on construction contracts and the drive to cut costs. So what should you do?

The good news is that the Loss Prevention Certification Board (LPCB) part of BRE, formerly the Building Research Establishment, already provides certification for passive fire resistant construction products including composite panels. This should make it straightforward for architects, engineers and other specifiers to select products that conform to relevant LPCB Loss Prevention Standards (LPS) and which will perform, as required, in a warehouse environment. Improved awareness will help, but if you are a developer or stakeholder ultimately you are responsible and you should always check that appropriate products have been specified for your project.

But this is only half the story. Correct installation and maintenance is equally important and surprisingly this requirement is very poorly appreciated right across the construction sector. In some cases this will severely undermine expected firewall performance. Sealants between panels, how they are fixed, even

Specifying LPCB approved companies and products for warehouse firewall applications provides a range of stakeholder benefits:

- Demonstrates due-diligence and mitigates against potential negligence claims
- Reduces the risk of product failure
- Provides assurance to building control, fire authorities and insurers that fire safety has been given appropriate consideration
- Reduces damage caused to property and insurance losses should a fire occur
- Avoids costly mistakes

the overall design, are all critical.

The Loss Prevention Standard (LPS) ensures passive fire protection products are installed correctly, exists, but is little known. So by selecting an LPS 1500 approved company, you can be sure that installers are appropriately trained and have the necessary expertise to design and install products that deliver your project's fire protection requirements.

What's more, the installing company must provide an LPCB Certificate of Conformity, confirming that materials used meet approved standards and that installation is in line with the manufacturer's recommendations.

Better awareness across the industry will clearly improve outcomes, and safety with peace of mind must take precedence over marginal cost considerations. www.isd-solutions.co.uk