

C03

Steel encasements

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This section contains steel encasement systems that provide up to 180 minutes of fire protection to structural steel columns and 120 minutes for structural steel beams and joists



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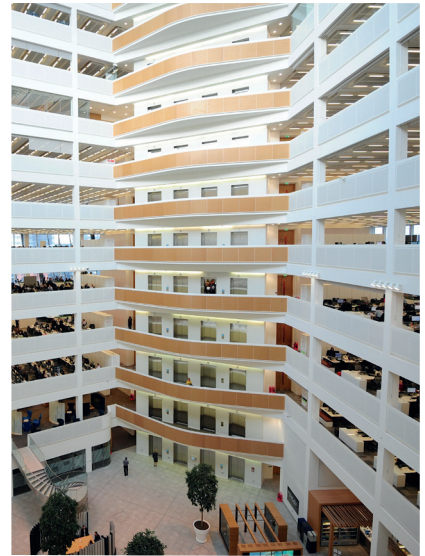
Passive fire protection is a vital component of any fire safety strategy. It safeguards people's lives and limits the financial impact of damage to buildings and their contents. The protection of the superstructure from fire is especially important, as once its integrity is compromised, the whole building's stability will be at risk.

We have two types of solution:

- **FireCase** – C03. S02. P71
A frameless structural steel encasement where the board linings are fixed to themselves to minimise space intrusion. The system can be used in buildings before they are fully watertight to improve speed of project handover
- **GyLyner ENCASE** – C03. S03. P91
A metal framed structural steel encasement system for greater flexibility of installation

Each system section takes you through the process of selecting the required lining type and thickness to provide a range of standard structural steel beam, column and joist sizes with the fire protection level needed.

Both systems are able to accept standard methods of finishing; tape and joint or Gyproc Finish Plaster, to aesthetically match surrounding elements. An aesthetic finish is not necessary with the **FireCase** system to maintain its fire performance.



You may also be interested in...

If you need to protect structural steel within the cavity,

- ▶ Refer to **GypWall QUIET C04. S07. P219** or **GypWall QUIET IWL C04. S08. P231**

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Areas to consider when specifying

Unlike some alternative fire protection technologies, for example intumescent paint, our encasement systems will give acoustic benefits by reducing sound transmission through the steelwork. Further improvements can be made to the sound insulation performance by the inclusion of Isover insulation within the system, and by modifying the abutment detailing to reduce flanking sound transmission.

► Refer to figure 1.

Using FireCase or GyLyner ENCASE could therefore offer both savings and simplification over alternative fire protection technologies that may require overboarding.

Thickness of applied fire protection

Glasroc F FIRECASE and Gyproc plasterboards are manufactured to stringent factory tolerances, giving the client peace of mind that the correct thickness of fire protection has been applied, ensuring life safety in the event of a fire.

Benefits to compartmentation

Using the FireCase or the GyLyner ENCASE systems will eliminate any potential problems with compartmentation. Unlike some alternative fire protection technologies, e.g. paint, using the FireCase or GyLyner ENCASE systems will ensure that there are no potential problems with insulation failure through the steelwork.

► Refer to figure 2.

All year round installation

Glasroc F FIRECASE and Gyproc plasterboards have an operational tolerance from below freezing to +49°C, whereas some alternative technologies are often +5°C to +30°C. This ensures that there are no potential problems with the build program in Irish winter conditions.

Building programme efficiencies

The FireCase and GyLyner ENCASE systems allow other trades to work in close proximity and simultaneously. Some alternative technologies require areas of the site to be closed off due to the containment of overspray and fumes.

Ease of maintenance

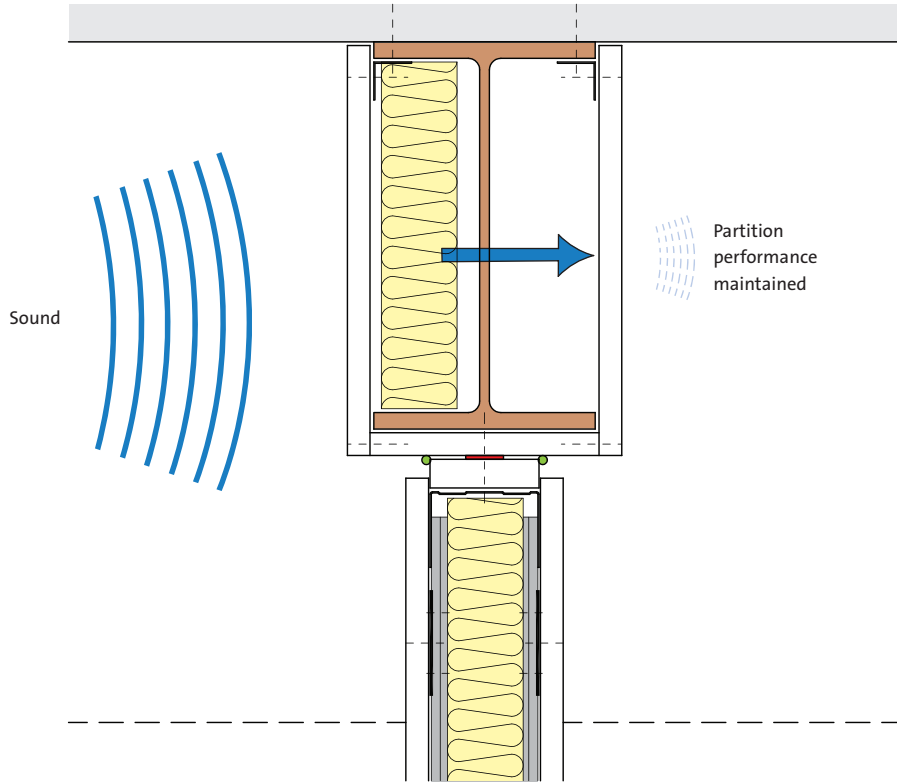
Using the Fire Services Acts 1981 & 2003 and the Fire Safety Regulations (Northern Ireland) 2010 the responsible person has duty of care for maintaining the buildings fire protection systems. The FireCase and GyLyner ENCASE systems are robust but should damage occur it is easy to identify and simple to repair or replace, making management and maintenance simple for building owners.



Additional information

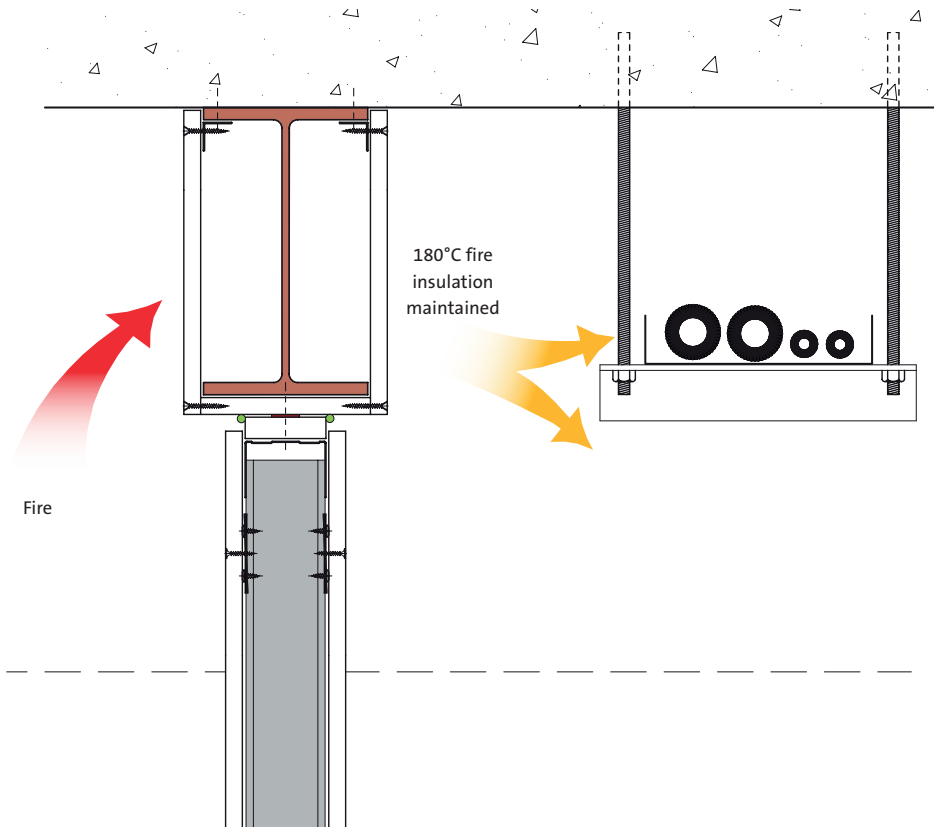
Try out our **System Selector**, an online tool designed to help find the ideal solutions for your project needs. Visit gyproc.ie

1



Benefit to acoustics -
Fire resistance in accordance with BS 476 Part 22: 1987

2



Benefits of compartmentation - BS 476 Part 22: 1987