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Tegral Twin-Skin Roofing and Cladding



The Helix, Dublin.
Tegral Roof Decking



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Tegral Composite Floor Decking



Central Park, Leopardstown, Dublin.
Tegral Composite Floor Decking

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steel roof sheeting and cladding in Ireland

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www.patricklynchroofcladding.com

Tegframe® Framing System

Lightweight Framing Technology



A world of experience

Our Company

Tegral Metal Forming is part of the Tegral Group and a subsidiary of the Etex Group, a world-renowned international building products company. For over 25 years, Tegral Metal Forming has been to the forefront of development with regard to roofing, cladding and flooring systems.

Based in Athy, Co. Kildare, the Tegral Group consists of Tegral Building Products and Tegral Metal Forming. Tegral Building Products is Ireland’s largest manufacturer and distributor of roofing products and Tegral Metal Forming Ltd. is a leading manufacturer and supplier of metal roofing, cladding and flooring systems for the construction industry.

The comprehensive product range is designed to suit most applications in modern commercial, industrial and agricultural construction. Over the years, Tegral Metal Forming has developed an expertise in every aspect of metal systems application.

Our Partners

Through a long-standing partnership with Corus, a world-renowned manufacturer of steel and aluminium, Tegral customers and specifiers are assured of the highest standards and quality in all Tegral products.

Our Standards

All manufacturing in Athy meets with the stringent requirements of Quality Assurance systems to ISO EN 9001:2000.



Our People

People really do matter at Tegral Metal Forming. Recently the company proudly embraced and succeeded in achieving the “Excellence Through People” award, Ireland’s national standard for human resource development.



Our Industry Associates

Tegral Metal Forming takes an active role in the promotion of the metal industry and is involved in the Roof Manufacturers and Suppliers Association (RMSA) in Ireland, the Metal Cladding and Roofing Manufacturers Association (MCRMA) in the UK and also the Irish Farm Buildings Association.

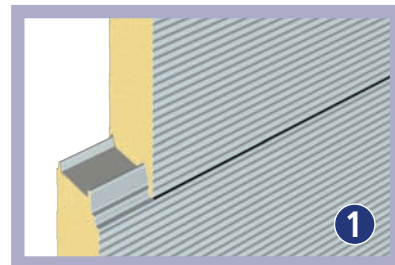


Project: Colaiste de hIdé, Dublin
Architects: Campbell Conroy Hickey
Product: Tegral Finline 19, Corus Colorcoat® HPS200

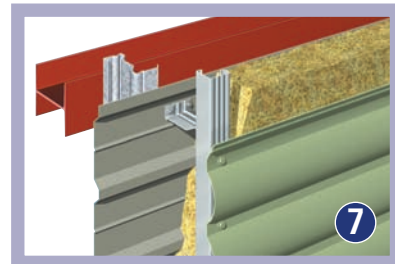
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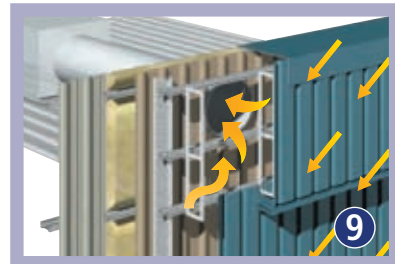
Tegral product range



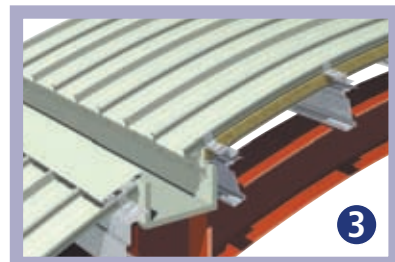
LPCB & FM approved
Insulated Panel Range



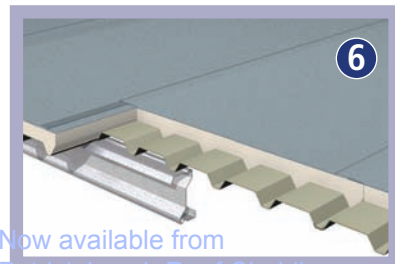
Built-Up Roofing and
Wall Cladding Systems



SolarWall™

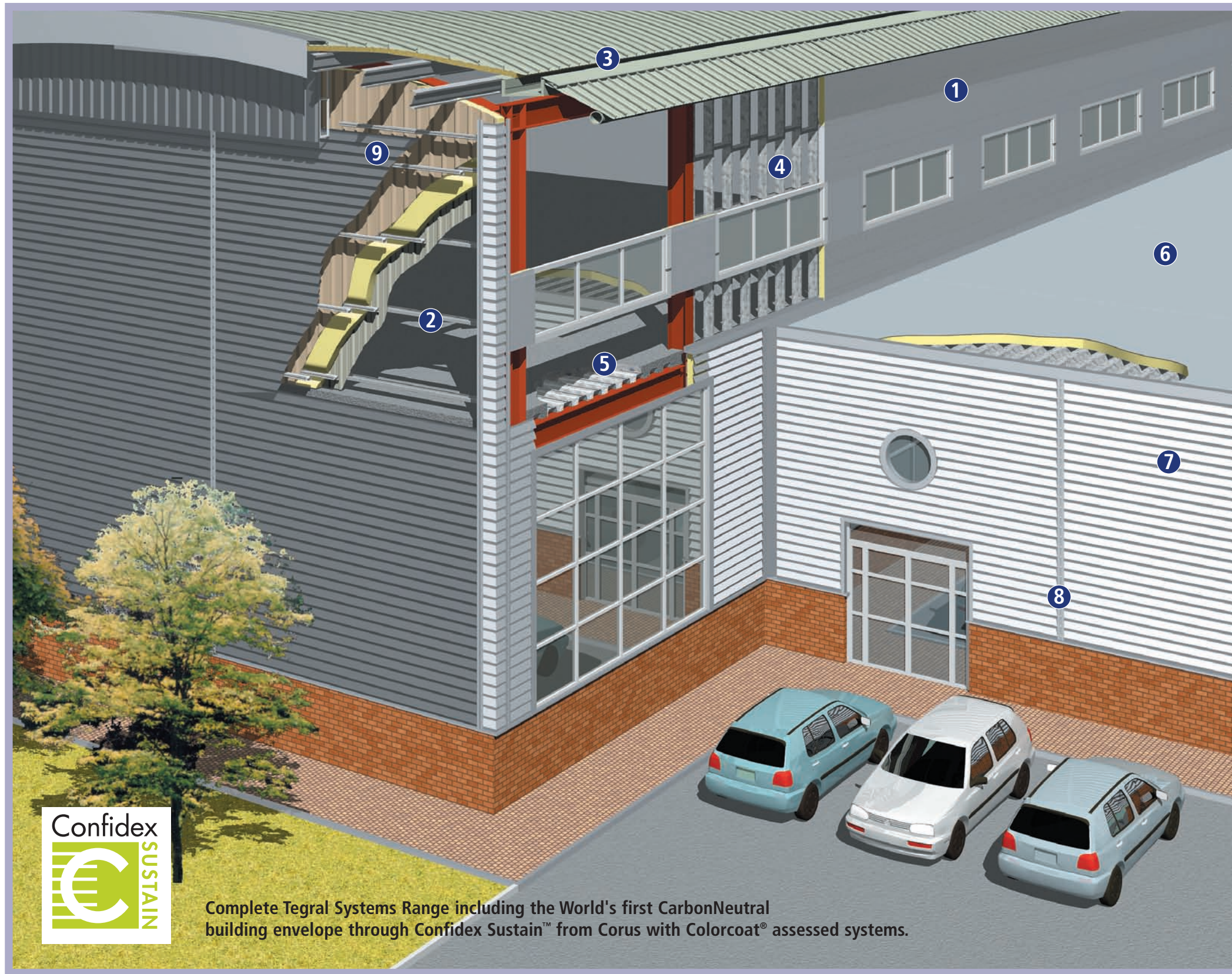


Aluseam® and Seam-Loc
Standing Seam Roofing



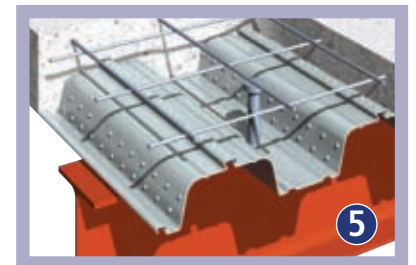
Now available from
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Superdeck Membrane-faced
Insulated Roof Panel

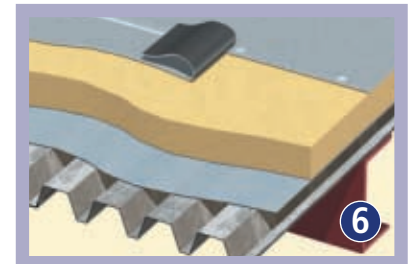


Complete Tegral Systems Range including the World's first CarbonNeutral building envelope through Confidex Sustain™ from Corus with Colorcoat® assessed systems.

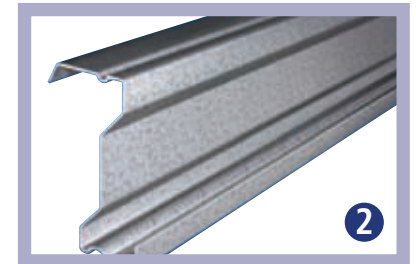
Tegral product range



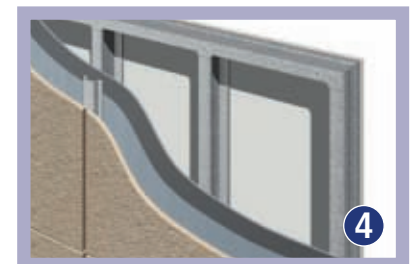
ComFlor® Flooring Range



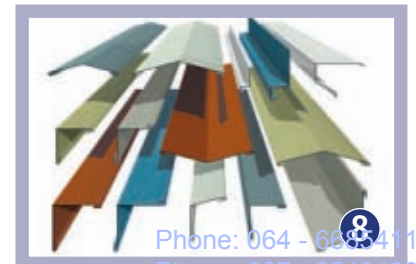
Flat Roof Deck Range



Zeta Purlin Range



Tegframe® Light Gauge
Steel Framing



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Tegframe

Introducing Tegframe

Tegframe technology combines the benefits of modern cold-rolled steel framing with innovative design. This means that **Tegframe** is the lightest, most steel-efficient framing system on the market.

Tegframe Design Check Service

In line with the full technical support service normally offered by Tegral, we can offer a full design check service to BS:5950 Part 5 designed specifically for **Tegframe** to allow for project design windloads and deadloads, (subject to façade system choice) and facilitating window and door openings.



Introducing Tegframe

Sections and Assemblies

The Tegframe system can be purchased in single sections or in pre-assembled frames.

All sections and profiles are manufactured from steel to BS EN 10147 Grade S390 GD, pre-galvanised with G275 coating and have a guaranteed minimum yield strength of 390 N/mm2.

Individual sections can be pre-cut to requirements or to standard lengths as individual components for site installation. Section lengths of up to 16 metres can be supplied subject to health & safety, transport and on-site handling restrictions. Connection holes and service routing holes can be included at extra cost. Sections can be connected together on-site using rivet type fasteners.

Alternatively, Tegral Metal Forming can provide the pre-assembled frames which are then delivered to site for application to the main construction.

Identification & Delivery

Tegral can apply reference marks to the sections for on-site identification. All sections are bundled and strapped to clients batch requirements for delivery to site. Off-loading is the responsibility of the installer.



Quality Assurance

Tegframe sections are manufactured to the highest quality standards, using the latest in automated manufacturing technology. Our processes are fully compliant with ISO 9001: 2000 which means developers and building occupiers can be assured of premier product performance over the building lifetime.

Tegral Technical Support

Tegral Technical Support Services are available to assist with the design, specification and installation of Tegframe on:
tel: +353 (0)59 86 40750
fax: +353 (0)59 86 40751
email: metaltech@tegral.com

Key Features of Tegframe system

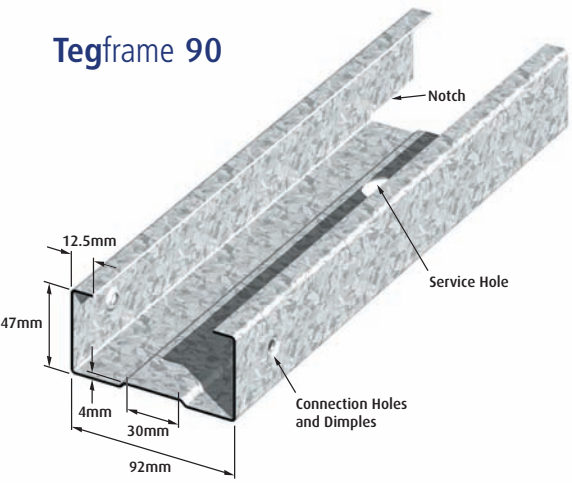
- ✓ Uses lighter gauge sections: 0.75mm / 1.0mm / 1.2mm versus industry standard 1.2mm – 2.0mm
- ✓ Full Design check service available
- ✓ Provides most cost efficient use of steel
- ✓ Allows use of lighter foundations
- ✓ Precision engineered to provide excellent dimensional accuracy
- ✓ Location holes pre-installed during manufacture
- ✓ Can be supplied in pre-cut single section lengths or in pre-assembled frames for faster construction
- ✓ Can be easily achieve high levels of structural, fire and acoustic performance when used in conjunction with other products and components
- ✓ When used in external wall frame application can optimise lettable space
- ✓ Full Tegral Designer support service available
- ✓ Fully Recyclable

Design Considerations

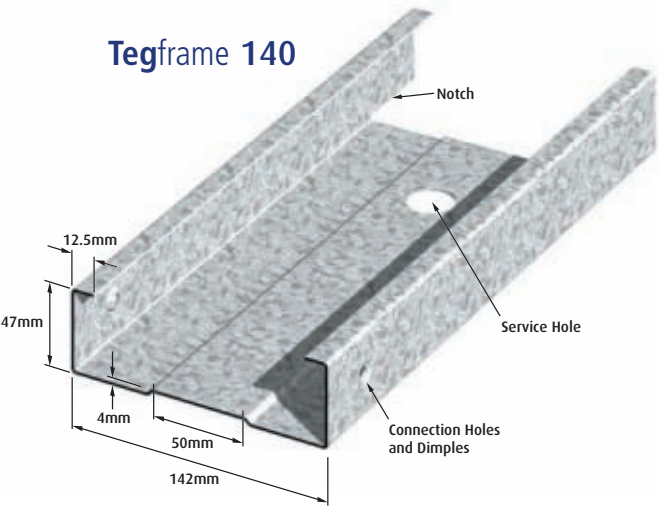
Components Offered

The following range of Tegframe sections are available:

Tegframe 90

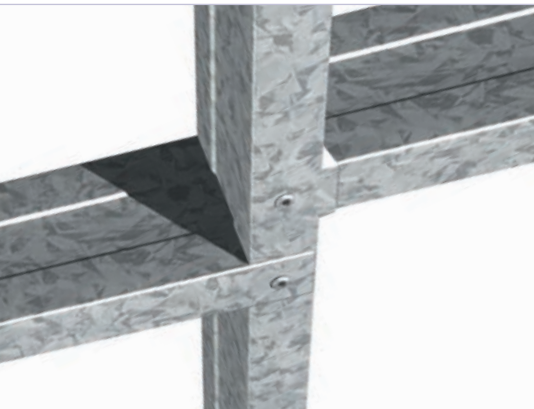
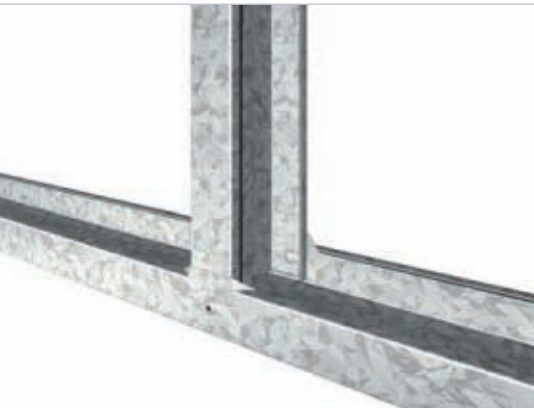


Tegframe 140



Flush Faced Connections

For easier assembly and the subsequent addition of required finishes, the Tegframe technology will automatically straighten the section lips to facilitate flush faced connections.



Tegframe is available in the following:

| Depth (mm) | Width (mm) | Gauge (mm) |
|------------|------------|------------|
| 47 | 92 | 0.75 |
| 47 | 92 | 1.00 |
| 47 | 92 | 1.20 |
| 47 | 142 | 0.75 |
| 47 | 142 | 1.00 |
| 47 | 142 | 1.20 |

Tegframe Design Considerations

Tegframe design check service

The selection of section size and gauge will be determined by:

- Structural and wind loading
- Allowable deflection of the structure
 - Stud centres
- Number and location of door and window openings
- Performance requirement of the element of construction
 - Architectural preferences

In line with the full technical support service normally offered by Tegral, we can offer a full design check service to BS:5950 Part 5 designed specifically for **Tegframe** to allow for project design windloads and deadloads (subject to façade system choice) and facilitating window and door openings.

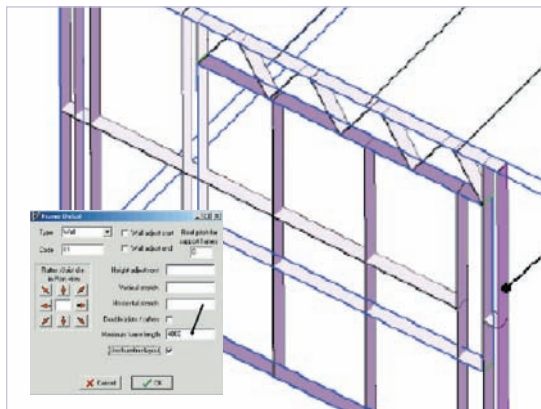
Design Process

Using architects CAD drawings our design team can design and detail **Tegframe** pre-assembled frames for use with walls, external facades and pre-assembled pods.

The simplified process has 4 easy steps:

Step One

- Design the structure in a CAD 3D application using the Architects plans or 3D Cad files
- Any Cad application that supports DXF file format for example, Auto-Cad or Chief Architect, Vector Works



Step One

Step Two

Computer aided software to create the steel frame structure

- The AutoCAD 3D file is quickly converted into a 3D structural format
- The total structure including walls studs, window and door beams, ceiling and floor joists are produced in 3D for viewing
- The file in an INT format is now ready for **total automated production** on the **Tegframe Former**.

Step Three

Automatic production of all the profile and components

- **Tegframe** former auto-programmed via computerised data transfer
- Automated production of the components in one operation

Step Four

Assembly of the steel frames and total structure

- Each component is roll formed, shaped for assembly, pre-punched & cut to measurement with high accuracy
- The components are riveted together into frames
- All the frames & beams for the structure are ready for erection on site. Being lightweight and manageable **Tegframe** is usually erected on site without craneage.



Step Four

Openings

Openings for windows and doors etc. are designed in by client's engineer and are then easily constructed using **Tegframe**. The dimensional accuracy and stability of the **Tegframe** system allows for tighter tolerances around structural openings when compared to traditional methods.

Tegframe Design Considerations

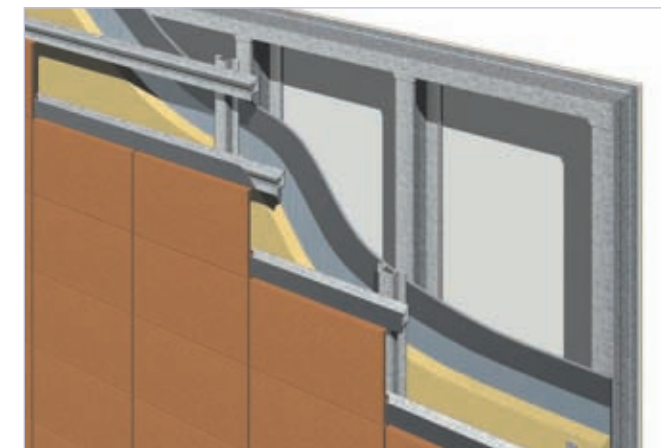
External Finishes

Tegframe will accommodate a wide variety of external finishes including:

Brickwork, Masonry slips, Terracotta tiling, Metal and fibre cement rainscreen, Insulated render, Timber cladding.

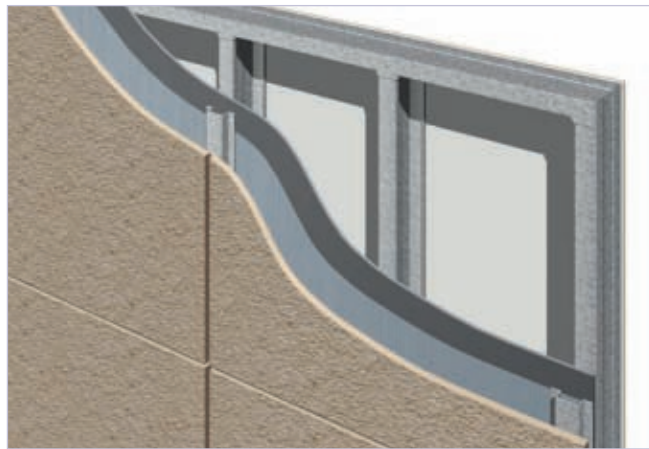


Masonry slips

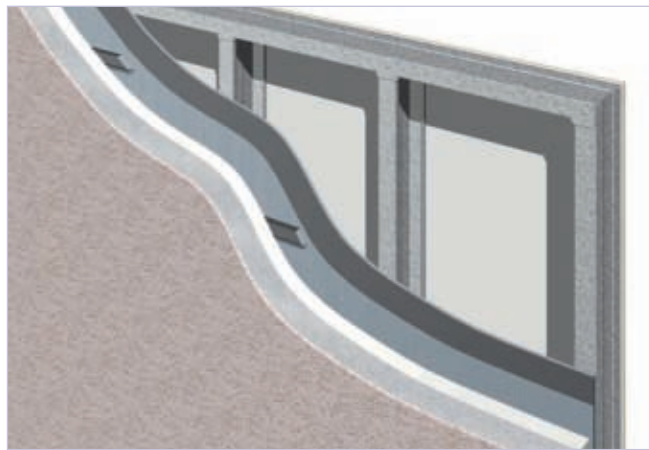


Terracotta tiling

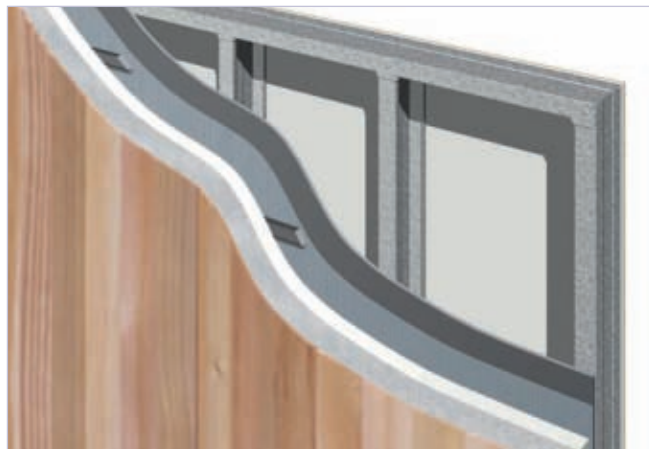
Tegframe Design Considerations



Metal and fibre cement rainscreen



Insulated render



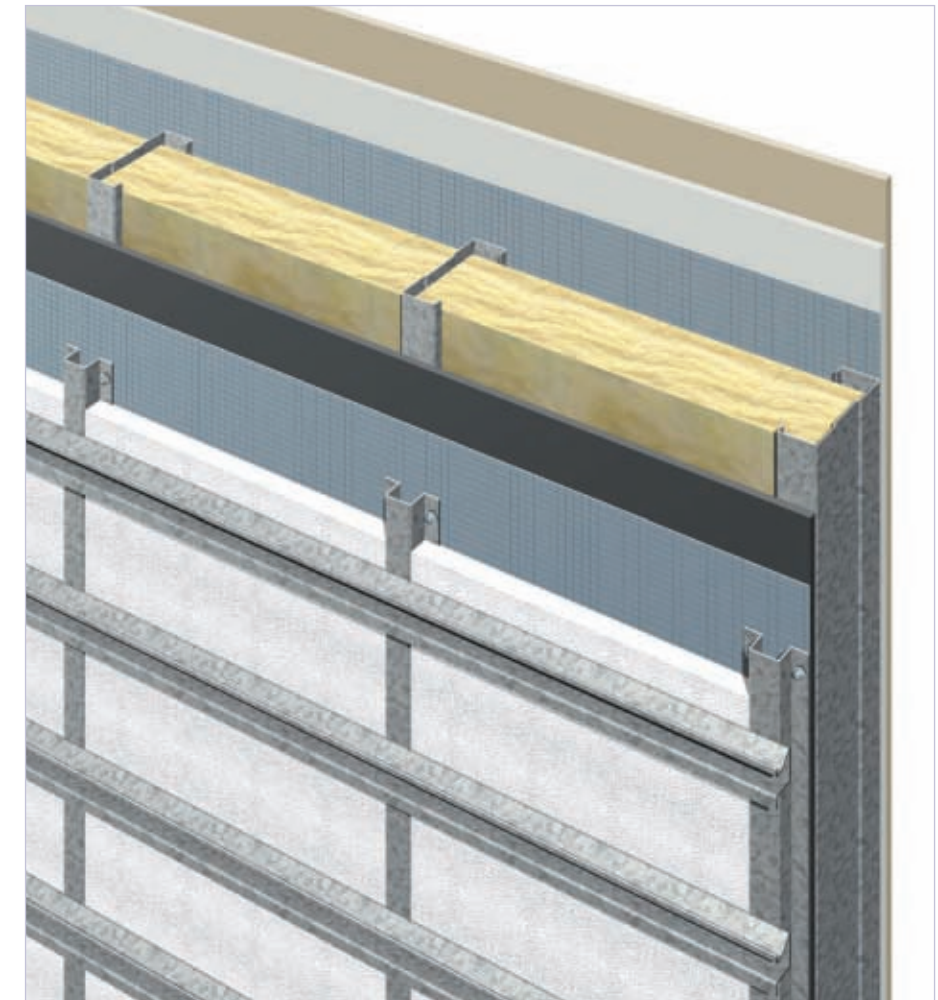
Timber cladding

Tegframe Design Considerations

Through wall performance

A 'warm frame' construction is possible using Tegframe by the positioning of the major elements of thermal insulation to the exterior of the structure.

Additional insulation can be inserted within the steel frame between the sections to provide higher levels of acoustic and thermal performance.



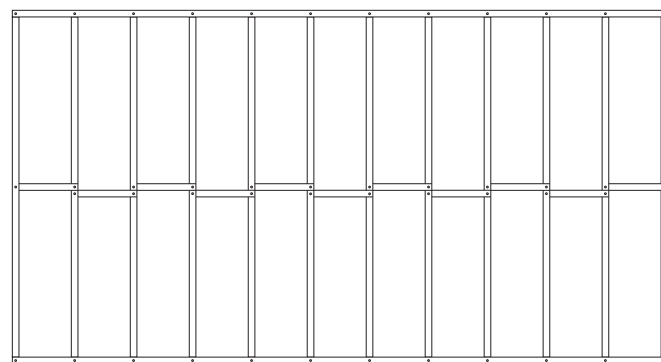
Tegframe 'Warm Face' Construction

Applications

In-fill frame construction

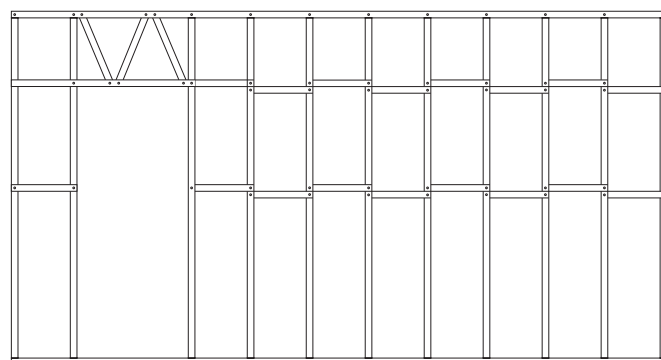
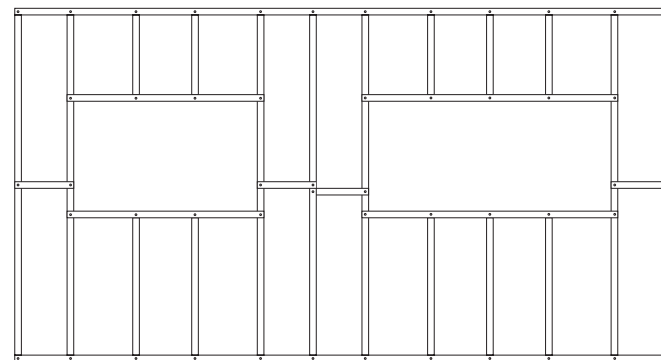
Tegframe assembled panels can provide a rapidly constructed secondary structure which can be quickly weatherproofed to allow internal trades to begin sooner. When used as in-fill or recessed wall frames **Tegframe** offers the easiest and simplest solution for cost-effective acoustic and fire separation between intermediate floors. The wall frame is positioned between the main frame

members, fixed to the top of the slab and the underside of the soffits. The frame is connected to the main structure by the base track section at floor level and a deflection header at the top. Connections to the upper and lower floor slabs and restraint requirements to external studs are determined by the project engineer. Internal linings are fixed using the methods specified by the lining manufacturers.



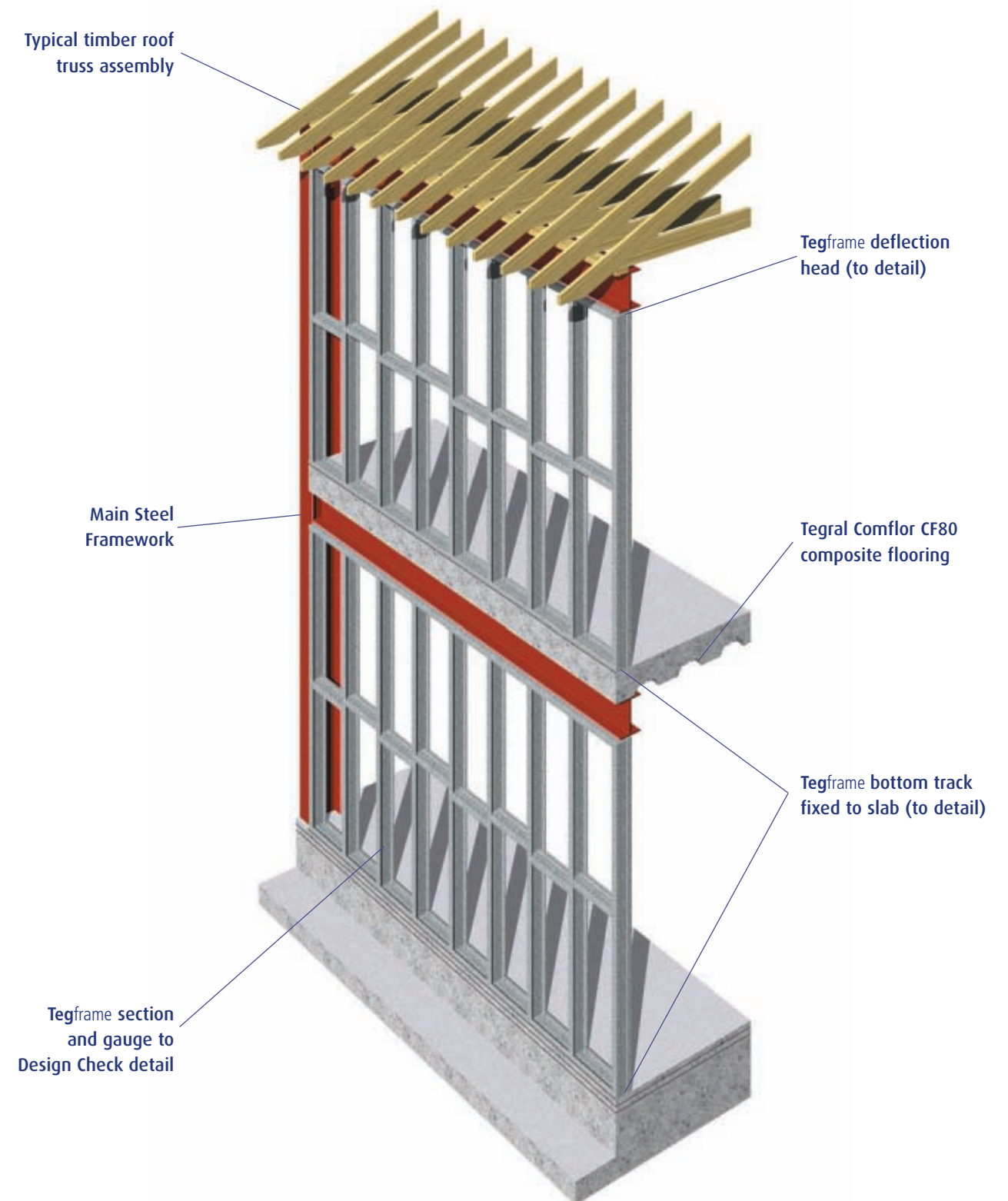
Plain framing

Framing including window openings



Framing with door opening and bracing

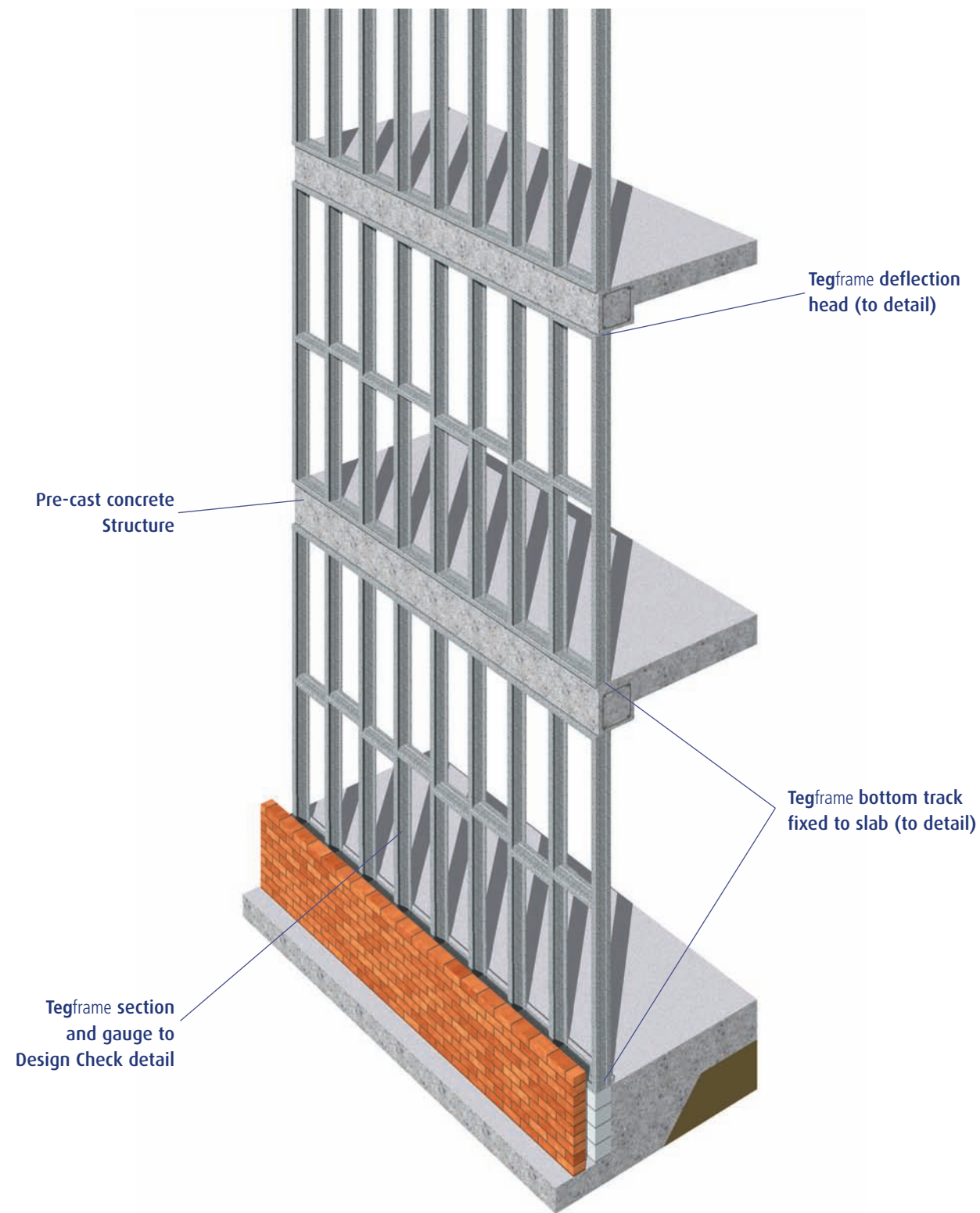
Connections to Steel Structure



Tegframe Connection to Metal Structure



Connections to Concrete Structure



Tegframe Connection to Concrete Structure

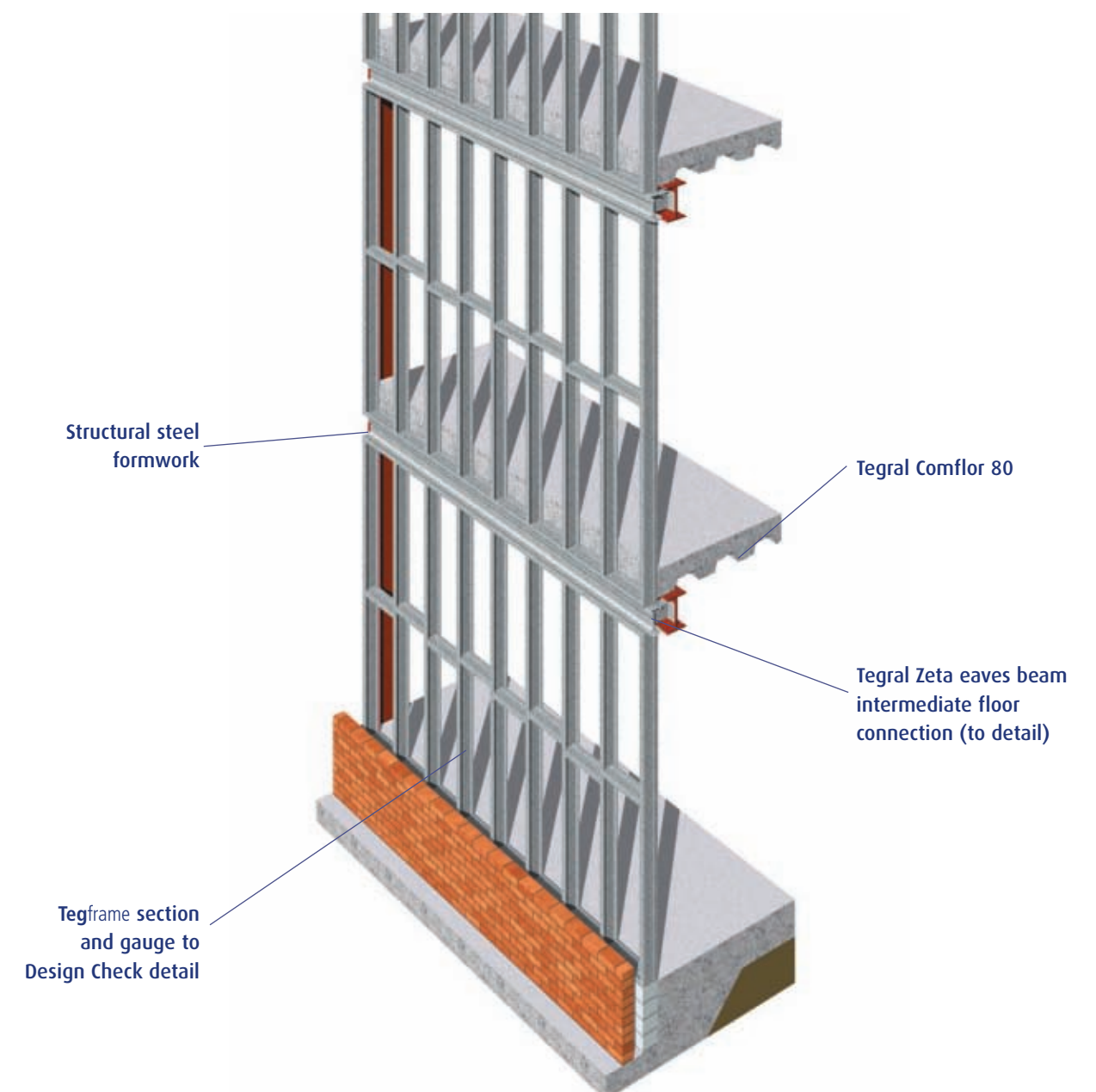


External Wall Application

Tegframe can also be applied to the outside of the main frame and fixed to it each floor level. When applied in this way, the Tegframe optimises the useable space of the building. As with the in-fill application the Tegframe also allows the rapid achievement of a weathertight envelope with allows internal trades to commence work sooner, thus helping to reduce overall programme time.

With the external wall system the designer must also consider fire engineering and acoustic requirements to ensure complete integrity of the system.

Restraint requirements to external studs are determined by the project engineer. Internal linings are fixed using the methods specified by the lining manufacturers.



Tegframe Multi-storey Steel Main Structure



Tegframe Dado Wall Construction

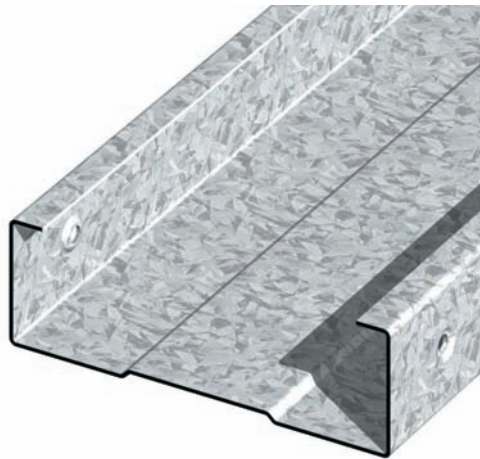
Tegframe Product Range

Tegframe 90



| Dimensions (mm) | Gauge (mm) | Factory Assembled | Product Code |
|-----------------|------------|-------------------|--------------|
| 47 x 92 | 0.75 | No | TF59075SF |
| 47 x 92 | 0.75 | Yes | TF59075SFAS |
| 47 x 92 | 1.00 | No | TF59010SF |
| 47 x 92 | 1.00 | Yes | TF59010SFAS |
| 47 x 92 | 1.20 | No | TF59012SF |
| 47 x 92 | 1.20 | Yes | TF59012SFAS |

Tegframe 140



| Dimensions (mm) | Gauge (mm) | Factory Assembled | Product Code |
|-----------------|------------|-------------------|--------------|
| 47 x 142 | 0.75 | No | TF514075SF |
| 47 x 142 | 0.75 | Yes | TF514075SFAS |
| 47 x 142 | 1.00 | No | TF514010SF |
| 47 x 142 | 1.00 | Yes | TF514010SFAS |
| 47 x 142 | 1.20 | No | TF514012SF |
| 47 x 142 | 1.20 | Yes | TF514012SFAS |

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