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SAINT-GOBAIN

Building Better for Every Generation

Exploring how industrialised construction is transforming the built environment.

An e-book by Intrastack, showcasing
Saint-Gobain UK & Ireland brands and solutions.

Contents

> *Industrialised Construction refers to the application of standard, repeatable manufacturing and assembly processes to the delivery of building and infrastructure projects. [...]*
>
> *By focusing on process standardisation and repeatability, Industrialised Construction reduces variability, enables continuous improvement, and unlocks the benefits of advanced manufacturing technologies, robotics, and digital workflows.*

*- Construction Leadership Council**

INTRODUCTION

Saint-Gobain Sector Solutions

At Saint-Gobain, our purpose is to make the world a better home. That ambition drives how we support the construction industry today - helping to build smarter, safer and more sustainably. As demands on the UK's built environment grow, 'better' means rethinking how buildings are designed, manufactured and delivered.

This e-book explores how Saint-Gobain is helping to reshape construction through industrialised approaches, by bringing together new and established brands such as Intrastack, InteWall, British Gypsum and Isover. Using Intrastack's light gauge steel frame systems and early-stage design collaboration, we support developers and contractors in delivering high-quality buildings with greater speed, precision and certainty.

Backed by Saint-Gobain's 360-year heritage and global strength, we offer proven solutions - not experimentation. Our long-term investment in off-site and MMC enables reliable delivery across sectors including education, healthcare, student accommodation and residential.

Read on to discover how industrialised steel solutions are transforming UK construction - and how, together, we can build faster, smarter and better.

If you're ready to embrace a more efficient, industrialised approach to construction, we're ready to build it with you.

INTRODUCTION

Saint-Gobain Sector Solutions

Saint-Gobain UK & Ireland brings together systems and solutions from established and innovative brands to deliver projects at pace, achieve factory-assured quality, and support more sustainable construction – all through precision-manufactured building systems.

It is this combination of complementary systems and expertise that sets Saint-Gobain apart. Rather than limiting customers to a single approach, we work collaboratively to develop project-specific solutions that respond to both individual requirements and the evolving needs of the construction industry.

Intrastack provides advanced light-gauge steel frame solutions, delivering high-strength, light-weight structures that enable rapid, accurate construction across residential, commercial and mixed-use developments.

InteWall strengthens industrialised construction delivery through a panelised drylining system. Manufactured off-site under controlled conditions and driven by a digital design approach, InteWall improves on-site efficiency, reduces labour and minimises material waste.

British Gypsum provides market-leading drywall systems, combining technical expertise with a range of high-performance linings, partitions and ceilings that support fire, acoustic and durability performance in industrialised build environments.

Isover offers high-performance insulation solutions, improving thermal efficiency, acoustic comfort and sustainability outcomes while supporting fabric-first, MMC-led design.

Together, these brands embody Saint-Gobain's vision for a smarter, more integrated and more efficient future for off-site and industrialised construction.

intrastack

WWW.INTRASTACK.CO.UK

InteWall® INTELLIGENT DRYLINING

WWW.INTEWALL.CO.UK

British Gypsum SAINT-GOBAIN

WWW.BRITISH-GYPSUM.COM

ISOVER SAINT-GOBAIN

WWW.ISOVER.CO.UK

CHAPTER ONE

Industrialised Construction

What is Industrialised Construction?

Industrialised Construction (IC) is an approach that applies manufacturing principles to the design, production and delivery of buildings. It focuses on standardisation, precision manufacturing, automation and integration - moving construction away from fragmented, site-based processes towards controlled, factory-led production and coordinated on-site assembly.

Rather than a single system or technique, industrialised construction encompasses a range of off-site and on-site methods that aim to improve productivity, quality and predictability across the construction lifecycle.

By shifting key construction activities into a controlled environment and integrating design with manufacture, industrialised construction enables buildings to be delivered faster, with greater certainty and improved whole-life performance.

Challenges & Benefits

As with any shift in construction methodology, IC brings both opportunities and challenges.

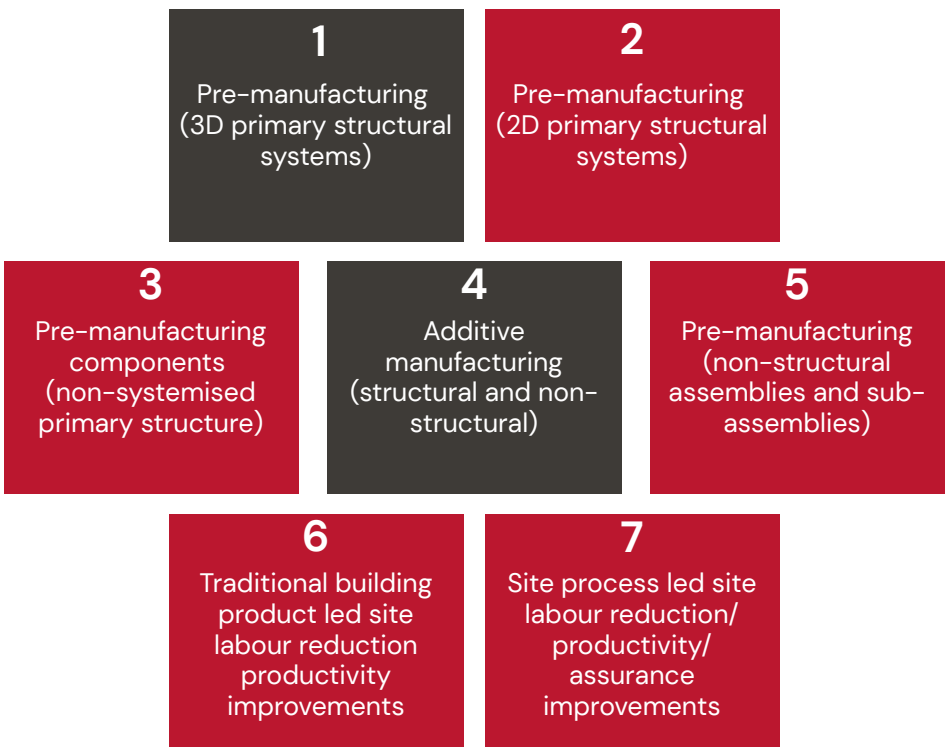
Although off-site and factory-based approaches have existed for many years, uptake across the UK has been uneven. In some areas and sectors, such as Scottish housing, factory-manufactured systems are well established, while elsewhere adoption has been slower. This has often been influenced by regulatory uncertainty, skills and training availability, and a historic preference for traditional, site-based construction.

When implemented effectively, industrialised construction offers clear advantages. Factory-controlled manufacturing can improve build quality, enhance on-site safety and significantly accelerate programme delivery. Standardised components, manufactured with precision, help reduce waste, improve material efficiency and deliver greater consistency across repeatable projects.

CHAPTER ONE

Industrialised Construction: How MMC Categories Enable a Factory-Led Approach

Modern Methods of Construction (MMC) provide the recognised classification framework* for off-site and modern building techniques. Industrialised Construction goes further - applying manufacturing principles, integrated systems and repeatable processes across multiple MMC categories to deliver buildings with greater certainty, quality and speed.



Across the Saint-Gobain business we are active in the five categories shown above in red.

Categories 2 and 5 are the primary focus for Intrastack systems. These are off-site panelised construction of 2D panels delivered to site to construct full 3D structures, and non-structural assemblies of SFS/infill delivered to site.

*BuildOffsite MMC Seven Categories Framework
*Government Modern Methods of Construction working group

CHAPTER ONE

Category 2: Pre-manufacturing (2D primary structural systems)

Intrastack applies panelised construction principles to deliver 2D primary structural systems manufactured off-site with precision and consistency. Steel frame panels arrive on site ready for installation, significantly reducing programme risk, minimising manual handling and enabling faster, safer construction — a compelling solution for time-critical commercial projects.

> **Off-Site Panelised Construction**
>
> ***Panelised construction is an approach where panel units are produced in a factory environment and come to the site 'flatpacked', typically a series of floor, wall, or roof panels, which are then assembled on-site to produce a three-dimensional structure.***
>
> *- CITB Report: Impact of modern methods of construction on skills requirements for housing*

CHAPTER TWO

Building Better for Every Generation

Build Better

With growing pressure to deliver high-performance buildings faster, more cost-effectively and with greater certainty, the way we build must continue to evolve.

As part of Saint-Gobain, Intrastack supports contractors and developers in rethinking traditional construction approaches. Through panelised light gauge steel framing and integrated, factory-manufactured systems, we help reduce on-site complexity while improving quality, safety and programme control.

From primary structure to integrated building components, our industrialised construction solutions are designed to meet the demands of today's projects — and the needs of tomorrow's built environment.

For Every Generation

Whether you're delivering hospitals, schools, care homes or office buildings, an industrialised approach helps you to:

- **Build faster:** Reduce on-site time and labour through precision-engineered steel frame panels manufactured off-site and assembled efficiently.
- **Build smarter:** Improve predictability with factory-assured quality, streamlined logistics, fewer site interfaces and reduced exposure to weather delays.
- **Build for every generation:** Create buildings that enhance comfort and performance, supporting reduced running costs and lower carbon impact over their lifetime.

CHAPTER TWO

Benefits of Industrialised Construction by Building Type

Industrialised Construction (IC) is transforming how buildings are designed, manufactured and delivered. By applying manufacturing principles - such as standardisation, precision engineering and integrated design - to construction, IC enables greater certainty, speed and quality across the build process.

Rather than relying on traditional, sequential site activities, Industrialised Construction combines factory-manufactured systems with efficient on-site assembly. This approach reduces risk, improves health and safety, and delivers consistent performance - particularly where buildings are repeatable, programme-critical or operationally complex.

When applied to specific building types, the benefits of Industrialised Construction become even more pronounced. Continue reading to find out how Saint-Gobain is embracing Industrialised Construction methods and the benefits for certain building types and sectors.

CHAPTER TWO

Benefits of Industrialised Construction by Building Type

Schools

Educational buildings must be delivered to tight budgets and timescales, while remaining adaptable to future teaching methods and long-term use.

Industrialised Construction supports school delivery by enabling:

- **Accelerated build programmes:** Panelised and pre-manufactured structural systems allow classrooms and core facilities to be installed quickly - often during school holidays - minimising disruption to teaching and learning.
- **Design flexibility:** Steel-led, industrialised systems support large, open-span spaces suitable for flexible learning environments, halls and sports facilities.
- **Cost and programme certainty:** Manufacturing components in a controlled environment reduces weather-related delays, site variability and budget risk, giving local authorities and academy trusts greater confidence in delivery.
- **Long-term durability:** High-performance structural systems deliver robust, low-maintenance buildings that meet the long service life expectations of public sector investment.

CHAPTER TWO

Benefits of Industrialised Construction by Building Type

Student Accommodation

In student housing, where speed, cost, and repeatability are critical, panelised light-gauge steel frame solutions provide:

- **Rapid ROI:** Fast-track construction enables developers to meet academic calendar deadlines and begin generating revenue sooner.
- **Standardisation and Efficiency:** Standardised sections can be developed to ensure efficient, low waste construction with consistent quality across multiple buildings.
- **Design Flexibility:** Steel frame structures accommodate open communal spaces, en-suite layouts, and integrated M&E systems without compromising on design.

Care Homes

For care homes, where residents often have complex health needs, and build projects are time-sensitive, steel frame off-site construction offers:

- **Speed to Occupancy:** Rapid assembly of panelised components shortens build times, helping providers meet growing demand and operational deadlines.
- **Enhanced Quality and Performance:** Factory production ensures precision and consistency. Tested wall configurations ensure excellent thermal performance and reduced energy costs.
- **Minimal Disruption:** With much of the construction occurring off-site, on-site disruption is greatly reduced - beneficial when expanding or replacing homes in residential neighbourhoods.

CHAPTER TWO

Benefits of Industrialised Construction by Building Type

Offices

As workplace requirements evolve, office buildings must be faster to deliver, adaptable in use, and efficient over their full lifecycle.

Industrialised Construction offers clear advantages for commercial office developments:

- **Programme certainty in time-critical projects:** Panelised structural systems and coordinated manufacturing enable predictable delivery programmes — particularly valuable in urban, constrained or phased developments.

- **Improved on-site safety:** Factory-manufactured components reduce on-site labour, manual handling and working at height, contributing to a safer construction environment.

- **Reduced material waste:** Industrialised Construction enables office buildings to be designed and manufactured to precise dimensional requirements, significantly reducing material over-ordering and on-site waste. Steel frame panels are engineered to exact specifications, optimising material usage compared to traditional site-based construction.

CHAPTER THREE

Supporting Contractors & Developers

How we Support Partners and Projects

At Saint-Gobain, we partner with contractors and developers to deliver smarter and faster building solutions.

With in-depth industry experience and a fully-integrated service model, we support every stage of the build - from concept to completion - with tailored guidance, responsive support, and providing certainty at every stage of the build programme.

CHAPTER THREE

Support for Contractors & Developers

Sales Support

We don't just supply a product - we build partnerships. Our experienced sales team works to understand your project goals and identify the most efficient and cost-effective solutions.

We offer:

- **Responsive, knowledgeable support** from first enquiry through to contract.
- **Tailored commercial solutions**, backed by transparent pricing and reliable lead times.
- **Assessments and presentations** to support planning and stakeholder engagement.

Effective Off-Site Solutions

Intrastack steel frame systems reduce risk and enhance build performance. Our solutions are ideal for a wide range of building types, providing:

- **LGSF systems** manufactured in controlled environments for accuracy, speed, and consistency.
- **Customisable designs** to suit both repeatable and bespoke architectural visions.
- **Tested thermal, acoustic and fire performance** of wall build-ups designed with Saint-Gobain products.

Technical Project Management

Our dedicated project management team works closely with clients to ensure every project runs smoothly, on time, and to specification. From early-stage design coordination through to manufacturing schedules and on-site logistics, we provide:

- **End-to-end project oversight**, ensuring alignment with your build programme and key milestones.
- **Collaborative design support**, including early engagement with consultants and architects.
- **Precision scheduling,** to streamline delivery and minimise on-site time.
- **Compliance expertise**, ensuring all systems meet relevant standards and certifications.

Expert Advice You Can Rely On

With years of experience in modern construction methods, our team brings extensive technical knowledge and practical insight to every project.

We advise on:

- **Design optimisation**, helping to maximise available space, reduce materials, and simplify installation.
- **Buildability reviews**, flagging potential issues early to avoid costly delays.

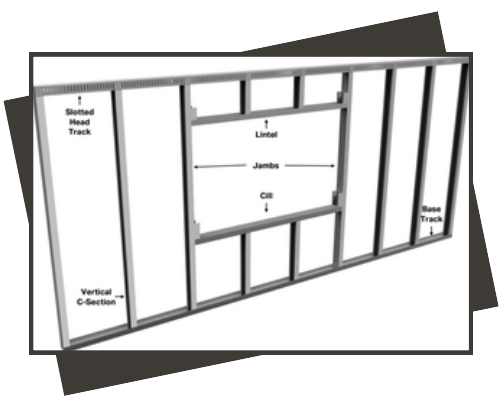
CHAPTER FOUR

Steel Frame Solutions

Light-Gauge Steel Frame (LGSF) Load-Bearing Solution

The Intrastack system is engineered to deliver fully load-bearing structures of up to 12 storeys, providing a robust and highly efficient solution for mid-rise developments. Each project is uniquely designed and carefully optimised to maximise the performance of light-gauge steel frame (LGSF) technology, ensuring structural integrity while maintaining flexibility to meet specific design requirements and building layouts.

By leveraging precision-engineered off-site manufacturing and a system-led approach, Intrastack helps to streamline construction processes and improve overall project outcomes. The intelligent use of LGSF structural design enables a reduction in material usage without compromising strength or durability, while also minimising waste, labour demands, and on-site complexity. This results in faster installation, improved quality control, and more predictable build programmes.



SFS Infill System

Infill walls, also known as SFS, are the non-loadbearing external walls built between floors of a primary structural frame; they are used to provide support for the cladding system. A lower carbon steel option is available on request for infill and GypLyner Xternal SFS.

CHAPTER FOUR

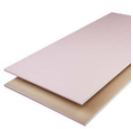
Commercial Sector Solutions

GypLyner Xternal – Through-Wall Solution

GypLyner Xternal is a full Saint-Gobain through-wall SFS solution that has a range of detailed and tested fire and thermal performance specifications, all supported by market leading technical evidence.

Based around Intrastack's SFS infill system, GypLyner Xternal brings together British Gypsum and Isover products to deliver fire resistance tested solutions to BS EN 1364-1 and acoustic airborne sound insulation performances to BS EN ISO 10140-2. Comprising a range of options to meet thermal requirements to Part L building regulations on Intrastack Steel Framing non-loadbearing SFS infill systems.

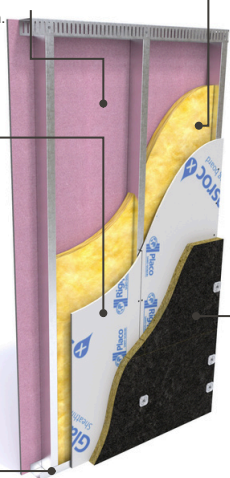
GypLyner Xternal – System Components



Gyproc® Fireline 15mm
A plasterboard containing glass fibre and other additives for extra fire protection.

Glasroc® X Sheathing Board 12.5mm
A high performance gypsum sheathing board with mould resistant properties.

intrastack
SFS base channel, head channel and stud by Intrastack.



Steel Frame Infill Batt
Glass mineral wool insulation slab for use between the studs of lightweight steel frames for enhanced thermal and acoustic performance.

Isover Acoustic Partition Roll (APR 1200)
Glass mineral wool for enhanced acoustic and thermal performance.

Glasroc X Screws 25mm
Fix weather resistant sheathing to steel frames securely.

Isover Polterm Max Plus
A stone material wool slab with a black glass veil on the external side providing thermal and acoustic insulation.

Stainless steel self-drilling insulation fastener screws (4.8mm diameter)

Stress Plate square retaining washers (70mm x 70mm, 6.8mm diameter)

CHAPTER FOUR

Commercial Sector Solutions

InteWall®
INTELLIGENT DRYLINING

InteWall - Intelligent Drylining

InteWall is a fully substantiated, panelised internal partition system designed to increase onsite efficiency and reduce waste.

Based around a digital design ecosystem and assembled under quality controlled offsite conditions, InteWall is an intelligent, internal drylining partition system, particularly suitable for use in high rise residential and multi occupancy buildings.

Designed for manual movement on site, InteWall is quick and simple to install, bringing certainty of system performance and site productivity and significantly reducing waste.

CONCLUSION

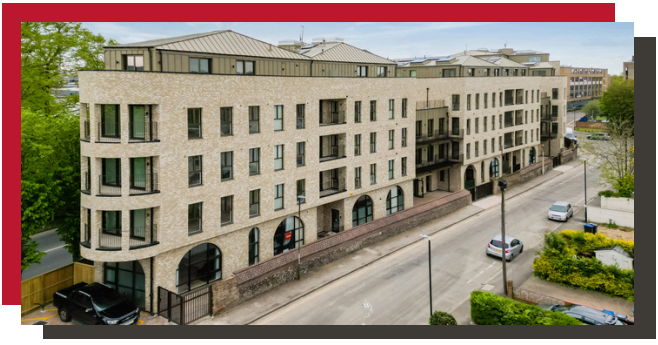
Building Better with Saint-Gobain

Building with Confidence

By choosing Intrastack, part of Saint-Gobain's industrialised construction solutions, contractors and developers gain more than just a high-performance steel frame system - they gain a trusted partner at the forefront of construction solutions.

Working seamlessly alongside British Gypsum, Isover, and InteWall, Intrastack brings together a complete, system-led approach that enhances performance, simplifies delivery, and ensures consistency from design through to installation. This integrated expertise enables faster, more predictable build programmes while maintaining the highest standards of quality.

Whether you're delivering high-quality environments for care, education, or commercial spaces, Intrastack provides the certainty you need at every stage — from early design to final installation. From new care facilities and student accommodation to school extensions and office developments, we support you in planning and building with confidence.



CONTACT US TO DISCUSS YOUR NEXT PROJECT:
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