STA | STRUCTURAL TIMBER ASSOCIATION

Self-build

Starter Pack

Everything you need to know to start your self build journey.

Self-build better with timber.

What is Timber Frame / SIPs

Timber Frame and SIPs deliver fast, energy-efficient, high-quality homes, perfectly built for self-builders.

A **timber frame manufacturer** produces structural timber frames which is manufactured offsite in factory controlled conditions, typically using softwood, that form the load-bearing skeleton of a building. These are assembled on site and often combined with insulation and external cladding. Depending on the provider insulation, windows and even cladding can be factory fitted to the timber frame structure.

A **SIPs manufacturer** makes Structural Insulated Panels, which are factory-made panels with a foam core sandwiched between two boards, used to build walls, floors, and roofs with high thermal efficiency.

The main difference is that SIPs provide both structure and insulation in a single composite unit, while timber frame systems use a timber structure with insulation added separately. The vast the vast majority of timber frame panels leave the factory insulated.

Timber Frame / SIPs is a modern, efficient way to build your home.

- Strong, precision-made panels form the structure of your house.
- Made in a factory, delivered to site ready to install.
- Pre-insulated for better energy efficiency.
- Quick to assemble, reducing build time and making costs more predictable.

Why Timber Frame / SIPs suits self-builders:

- Fast to build: homes can be made watertight in days, not months.
- Excellent design freedom: open-plan living, vaulted ceilings, big windows.
- Better insulation for greater energy efficiency.
- Controlled, safer, off-site manufacturing = higher quality.
- Whole-house solution; every structural element is taken care of.

Building with Stick Frame

Stick frame is when timber studs, joists, beams and other members are taken to site and cut to size and fixed by hand.

The approach often lacks quality control processes and independent assurance and it highly dependent upon site conditions and workmanship.

In contrast, modern timber frame systems are precision-engineered offsite, offering the added benefits of rigorous testing, certification, and proven compliance with building regulations.

This makes off-site manufactured timber frame a more robust and consistent solution for meeting the safety, health and performance standards in the modern construction environment

Why Use Quality Assured Timber Frame / SIPs Manufacturers?

Choosing a manufacturer that is a member of the STA is a smart move if you're planning to build a timber frame / SIPs home. It means your frame is built in a factory, so there's no risk of weather damage or delays. Everything is cut with precision in a quality-controlled environment, and each panel is carefully checked before it leaves the factory. Constructing your new home from larger panels enables the build to progress more quickly, as the frame arrives on site ready to go. To get the most benefit, it's best to involve your manufacturer early in the design stage. They can help tailor your plans to make the most of the timber frame construction and build more cost effectively.

Choosing a factory-audited manufacturer matters because:

- Built under cover: No weather damage, no delays.
- Accurate to the millimetre: Computer-controlled machines ensure exact cuts.
- Strict quality checks: Every panel is inspected before leaving the factory.
- Faster on-site build: Frames arrive ready to install.

When to engage a manufacturer:

- Early! Ideally during the design phase.
- Input from manufacturers ensures your plans suit timber frame construction.
- Avoid costly redesigns later.

STA ASSURE

Timber Frame / SIPs vs. Other Building Systems?

It's important to choose the building method that best suits your needs—here's a quick look at how the main methods compare.

Feature / Benefit	Timber Frame	Masonry (Brick & Block)	Steel Frame	Concrete (ICF, etc.)
Fast Build Times	😊	😐	😐	😐
Strong Sustainability Credentials	😊	😐	😐	😐
Easy to Make Energy-Efficient	😊	😐	😐	😊
Design Flexibility	😊	😐	😊	😐
Familiar / Widely Understood	😊	😊	😐	😐
Weather Independence	😊	😐	😊	😐
Structural Strength	😊	😊	😊	😊
Large Spans Possible	😊	😊	😊	😊
Can be made very airtight	😊	😐	😐	😊
Cost-Effective	😊	😊	😐	😐
Reduced on-site waste	😊	😐	😊	😐
Transportable	😊	😐	😊	😐

😊 Good performance

😐 Could be better

Timber Frame / SIPs stands out as an ideal building method for self-builders, thanks to its speed, sustainability, energy efficiency, and design flexibility. However, to fully realise these benefits, a single point of responsibility contract is important. It's essential to work with experienced and reputable STA audited manufacturers.

Early engagement with manufacturers is beneficial to ensure the design aligns with timber's specific requirements. Choosing a STA member manufacturer with STA Assure Bronze, Silver or Gold adds an extra layer of confidence, guaranteeing proven quality and industry best practices.

Attributes of timber systems compared to other build systems

Sustainability
Timber is a naturally renewable material that helps reduce the carbon footprint of construction.

Faster Build Times
Engineered timber systems enable rapid installation and shorter construction programmes.

Weather Independence
Offsite fabrication allows for consistent progress, regardless of site weather conditions.

Efficiency
Precision manufacturing supports streamlined workflows, reduced waste and optimise resources.

Single Point of Responsibility
Your structural timber system supplier provides all the design, engineering, supply and build services.

Predictability of Cost
Controlled production environments and fixed design supports more accurate budgeting.

Benefits of a Factory-Controlled Environment

Manufacturing structural timber components in a factory setting offers a level of quality, consistency, and accountability that simply can't be guaranteed on site. If it's not made in a controlled environment, it may struggle to meet the expectations of key stakeholders across the build process.

Key benefits include:

✓ Meets insurer and mortgage lender requirements through traceable processes and certified systems

✓ Supports warranty compliance with proven, repeatable quality standards

✓ Delivers consistent quality assurance, reducing risk and rework on site

✓ Improves health and safety by limiting on-site construction activity

✓ Minimises waste and increases material efficiency through precise engineering

Using an STA Assure member means:

- Simpler approval of mortgages and insurance.
- Increased confidence that fire safety and quality standards are met.
- Warranty backed by major providers.
- Lower risks during construction and after.

Checklist for protection:

- Always ask for fire performance evidence.
- Always confirm STA Assure membership.

Insurance, Warranties & Risk Reduction

Importance of Site Insurance

When embarking on a self-build or renovation project, securing site insurance is crucial. Not only does it protect against potential risks such as theft, fire, or accidental damage during construction, but it's also a requirement from most lenders before they release funds. Ensuring you have comprehensive site insurance in place safeguards your investment and keeps your project on track.

Structural Warranties and Their Role

Beyond the construction phase, a structural warranty provides long-term protection against defects in design, materials, or workmanship. Typically lasting for 10 years, this warranty is essential for future-proofing your home. It's also a key consideration for lenders and can be a selling point should you decide to sell the property in the future.

Choosing the Right Insurance Provider

Not all insurance policies are created equal. It's important to select providers who understand the nuances of self-build projects. Look for insurers who offer tailored policies that cover the specific risks associated with self-building. Additionally, working with companies affiliated with recognised industry bodies, such as the Structural Timber Association (STA), can provide added assurance of quality and reliability.

What is STA Assure – and Why It Matters

STA Assure is the UK's leading quality standard for Timber Frame / SIPs buildings. There are Bronze, Silver and Gold levels - a manufacturer cannot be an STA member without one of these achievements.

STA Assure is a quality scheme from the Structural Timber Association (STA) that makes sure high standards are met in timber construction, from the design stage, through manufacturing, to the final build on site. As part of the scheme, member companies are independently checked and recognised for meeting important industry standards.

This thorough checking process helps guarantee that the design, manufacturing, and on-site assembly of timber frames meet the high-quality people expect. STA Assure is trusted by all the main warranty providers, giving you confidence that your build is in safe and skilled hands.

It ensures:

- Products are tested for fire safety.
- Companies are audited and compliant with building regulations.
- Teams are trained and up-to-date on best practices.
- Structures are built to the highest possible standards.

For you, the self-builder:

- It protects your investment.
- It gives peace of mind, no cutting corners.
- It reassures your council, your lender, and your insurer.

Only STA Assure members carry this seal of trust.

Self Build Process: Step-by-Step

Designing Your Home

- Choose build system
- Define your budget and confirm affordability
- Choose your timber frame manufacturer
- Collaborate with design team
- Create a bespoke design or adapt a template
- Includes 2D plans, elevations, and optional CGI visuals
- Already have plans? Get technical info for Building Regulations

Planning Application

- Planning consultant/designer submits and manages your application
- Liaises with local planning authority
- Tracks progress and responds to queries on your behalf

Planning Approved!

- Guidance on meeting planning conditions
- Advice on energy efficiency requirements
- Preparation of Building Regulations submission

Getting Ready for the Build

- Support with site preparation
- Check delivery access and site safety
- Confirmation that the site is ready for a smooth frame installation

Arrival of Your Frame

- Coordination of frame delivery
- On-site assembly by a team of experienced erectors
- Panelised construction enables quick, efficient progress
- Your home begins to take shape

Completing Your Home

- Superstructure finished: windows, doors, and roof in place
- Internal fit-out starts: insulation, joinery, stairs delivered
- Final stages toward moving into your new home

Key Questions to Ask Your Builder or Timber Frame / SIPs Supplier

- Are you an STA Assure member?
- Can I see proof of fire and resistance performance?
- What factory quality controls do you have?
- When should I involve you in my design process?
- What insulation comes as standard?
- How do you help with airtightness and energy performance?
- Will you install the frame or recommend trusted installers?
- Are your timber frame installers STA assured?
- What support can I expect once the timber structure is complete?

It's important to remember that the Building Safety Act places increased responsibility on all parties involved in the construction process, from clients and designers to manufacturers and contractors.

The legislation is designed to improve accountability and ensure that buildings are safe, compliant, and high-performing throughout their lifecycle.

This means there is now a stronger emphasis on traceability, quality assurance, and clear documentation at every stage of a project.

Working with systems that are manufactured in factory-controlled environments by STA Members will help meet these demands more effectively, providing greater confidence in compliance and helping to reduce risk across the board.

Self-Build Mortgages

Timber-based construction methods, such as timber frame, oak frame, and structural insulated panels (SIPs), are increasingly popular among self-builders due to their rapid build times and environmental benefits.

However, despite these advantages, outdated perceptions about their mortgageability persist.

Myth Debunked: One of the most common myths is that modern timber construction is difficult to finance. In reality, modern structural timber systems built to STA Assure standards are widely accepted by self-build mortgage lenders. Issues generally arise when projects fail to meet specific lender criteria, particularly regarding external materials such as cladding and roofing.

Navigating a Complex Lending Landscape

Securing a mortgage for a timber self-build requires understanding the lending landscape and proactive planning.

- **Diverse Lender Policies:** Every lender has different policies. What is acceptable to one may not be acceptable to another. A unique design choice could narrow your lender options, but does not necessarily prevent access to mortgage finance.
- **Early Engagement is Crucial:** Working with a specialist mortgage intermediary early in your project lifecycle ensures you:
  - Understand which lenders align with your construction method and design.
  - Avoid costly redesigns to meet mortgage requirements later.
  - Gain access to exclusive products not available through high street lenders.
- **Tailored Finance: The Advanced Stage Payment Mortgage:** One of the biggest financial challenges facing offsite timber construction is cash flow timing. Offsite systems typically require large upfront payments for manufacturing and delivery costs that occur before traditional lenders would release funds.

Flexibility and Forward Planning

Being open to adjusting certain design features or working with lenders who specialise in timber systems can be the difference between approval and rejection. A proactive approach, backed by expert mortgage guidance, will smooth your journey from design to delivery.

Key Takeaways

- Timber self-build homes are mortgageable, provided they meet specific lender criteria.
- Early engagement with mortgage intermediaries can streamline the financing process.
- Understanding and adhering to lender requirements regarding materials and design features is crucial.
- Flexibility and thorough research can expand your financing options.
- Your timber frame manufacturer will be able to guide you to an experienced intermediary

STA Assured Members

STA Member	Company Website
Alexanders' Timber Design	www.alexanderstimberdesign.co.uk
B.E Timber Frame	www.betimberframe.co.uk
Crendon Timber Engineering Newquay	www.crendon.co.uk/contact/newquay-cornwall
Crendon Timber Frame Ebbw Vale	www.crendon.co.uk/contact/ebbw-vale-wales
Deeside Timberframe Ltd	www.deesidetimberframe.com
Ecologic SIPs	www.ecologic-sips.co.uk
Eurosips Energy Efficient Homes	www.eurosips.com
Fforest Timber Engineering Ltd	www.fforest.co.uk
Fine Carpentry Ltd	www.fine-carpentry.co.uk
Fleming Buildings	www.fleming-buildings.co.uk
Fleming Homes	www.fleminghomes.co.uk
Frame Homes / Frame UK	www.framehomes.co.uk
Frame Technologies	www.frametechnologies.co.uk
FrameWork Synergies Ltd	www.fwsl.co.uk
FRC Timber Frames Ltd	www.frctimberframes.co.uk
Freds Timber Frame	www.fredstimber.co.uk
Glosford SIPS	www.glosfordsips.co.uk
Harmony Timber Frame UK Ltd.	www.harmonytimber.co.uk
Inspire Timber Systems	www.inspiretimbersystems.co.uk
JML Contracts Ltd	www.jmlcontracts.co.uk
Kingspan Timber Solutions	www.kingspan.com
Lakeland Timber Frame Ltd	www.lakelandtimberframe.co.uk
Lowfield Timber Frames	www.lowfieldtimberframes.co.uk
Maple Timber Frame - SupaHome by Maple Ltd	www.mapletimberframe.uk
MBC Timber Frame UK Ltd	www.mbctimberframe.ie
Merlin Timber Frame	www.merlintimberframe.co.uk
MTE (Leicester) Ltd	www.mte-leicester.co.uk
Norscot Joinery	www.norscot.co.uk
Oakworth Homes Ltd	www.oakworthte.co.uk
Oakwrights Ltd	www.oakwrights.co.uk
OFP Timber Framed Homes Ltd	www.ofptimberframe.com
PYC Construction	www.pycconstruction.co.uk
Rob Roy Homes (Crieff)	www.robroyhomes.co.uk
Robertson Timber Engineering	www.robertson.co.uk
Roe Timber Frame Ltd	www.Roeltd.co.uk
Ross Kennedy Joiners LTD	www.facebook.com/Rosskennedyjoiners
Scotframe	www.scotframe.co.uk
SIP Building Systems	www.sipbuildingsystems.co.uk
Sips Eco Panel Systems Ltd	www.sipseco.co.uk
SIPS Industries	www.sipsindustries.com
SIPS@Clays LLP	www.clays.com
Sticx Ltd	www.sticx.co.uk
Sydenhams Timber Engineering	www.sydenhams.co.uk
Target Timber Systems	www.targettimber.com
The Sip Company	www.thesipcompany.com
Thomas Carter Ltd	www.thomascarter.co.uk
TimberTight Ltd	www.timbertight.com
Turner Timber Frames	www.turnertimber.co.uk
UK Structures Ltd	www.ukstructures.com
Wales Timber Solutions	www.walestimbersolutions.co.uk
WB Timber Innovations Ltd	www.timberinnovations.co.uk