



DIRECT
TO JOIST



A1
FIRE RATED



WATER
RESISTANT



FLOOR
READY



BEST THERMAL
PERFORMANCE



STS Construction Boards TG4 18/22mm (1200 x 600mm)

High Performance Fibre Cement Floor Boards

Tongue and groove to four sides



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Is your client looking for underfloor heating and a tiled floor?

Plan to use **STS Construction Boards TG4** from the start.

These fibre cement boards are load bearing and can be fitted directly to timber or steel joists. Four sided tongue and groove, they slot together easily with less waste, providing the perfect surface to tile on without the need for additional layers.

High density fibre cement boards provide fire and water resistance, plus the best thermal performance. These boards absorb and release heat efficiently without losing shape over time, so no squeaks guaranteed.

It's not just an underfloor heating floor board. These boards are used in commercial settings for their strength and speed of fit, including mezzanine floors, retail and office projects.

- **18 or 22mm thick** - for new or refurbishments
- **1200 x 600mm (0.72m²)** - handy one-man lift
- **Tongue and groove to four sides** - less waste
- **A1 Fire rated** - for complete peace of mind

	Fire resistant	Water resistant	No squeaks guaranteed	Low skill & fast to fit	Standard UK joists	Underfloor heating (wet)	Tile straight over	On-site 6 months	Weather resistant	All floors in the building	Excellent thermal mass	Good sound proofing
Standard Chipboard Flooring	-	-	-	●	●	-	-	-	-	●	-	-
Coated Chipboard Flooring	-	●	-	●	●	-	-	-	-	●	-	-
Traditional T&G Timber Flooring	-	-	-	●	●	-	-	-	-	●	-	-
Screed Flooring	●	●	●	-	-	●	-	-	-	-	●	-
STSTG4 Boards	●	●	●	●	●	●	●	●	●	●	●	●

The first fibre cement floor board with a **Lifetime Guarantee**



TG4 direct to joist

Tongue and groove to four sides enables boards to be slotted together easily without the need for board edges having to fall onto joists. This means less cut to waste with quick and easy installation.

Fixing direct to joist avoids unnecessary floor build up. A choice of either 18mm or 22mm thickness also allows boards to marry up with existing flooring materials.

Boards come in a handy one-man lift size - 1200mm x 600mm. These are installed to either timber or steel joists using Mega Strength PU adhesive and 12 x 50mm fibre cement screws.



For technical support, call on 0113 202 2010



Water resistant & fire rated

Unlike standard chipboard equivalents, fibre cement resists water, enabling it to stand on site without weather damage and for site construction to continue regardless of inclement weather.

This board isn't just for flooring, it can be used externally and many are now using it as a first fix roofing material, before applying a finish.

Rated as a class A1, non combustibile, it provides essential fire proofing. This is especially important for party divides between retail and residential accommodation.

**WATER
RESISTANT**



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Best thermal performance

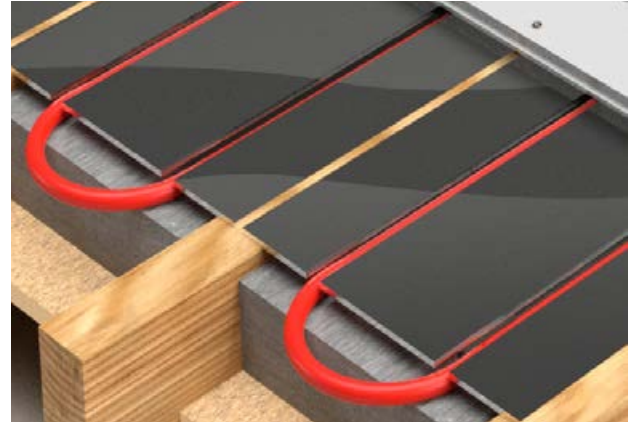
Fibre cement boards have high thermal conductivity, so they absorb and release heat much more effectively – much better than chipboard - therefore enhancing the performance of your underfloor heating.

Compatible with all types of wet and electric underfloor heating systems.

Floor ready

STS Construction Board TG4 slot together seamlessly creating a solid surface which is compatible with most floor finishes without the need for over-boarding.

**BEST THERMAL
PERFORMANCE**



Common applications

- Direct to joist tile backer
- Great for flat roofs
- Enhances underfloor heating
- Balconies
- Mezzanine flooring
- Outdoor tiled areas
- Modular build
- Loft conversions
- Bathrooms, kitchens & wetrooms
- Student accommodation
- Social housing
- Nursing homes & hospitals



Frequently asked questions

1. Is STS Construction Board TG4 more expensive than chipboard flooring?

Fibre cement boards are more expensive than chipboard flooring. However, you need to remember that more time and materials are needed to achieve a tile ready floor that works more efficiently with underfloor heating. When you add up the cost of multiple layers and the time to fix them, your client will be better off using STS Construction Board TG4 from the start.

2. These boards sound heavy - how easy are they to handle?

18mm boards weigh under 19kg each and 22mm boards weigh under 25kg each. One man can easily manage these boards, place them into position and even carry the boards up a stairway.

3. What joist centres are required to carry these boards?

STS recommends joist centres of 400mm - 500mm. However, in certain circumstances, 600mm can be achieved with 22mm boards.

4. How do you recommend measuring up when using STS Construction board TG4?

Boards are 1200mm x 600mm which is 0.72m². With tongue and groove to four sides, boards slot together easily. Plus, since board edges don't have to fall onto a joist, there's less cut to waste. STS recommends planning just 5% extra in addition to the floor surface area.

5. What's the best way to fix STS Construction Board TG4?

Cut the boards using a PCD saw blade. Use MEGA Strength PU Adhesive and 50mm Fibre Cement Screws to secure the boards to either timber or steel joists. Always fit the boards with the board print facing up. See below for more details. The STS Technical Support Team is available from 7am until 5pm, five days a week to help with any installation questions. Call on **0113 202 2010**.

6. Can STS Construction Board TG4 be left on site, open to the elements?

Yes. Fibre cement is water resistant so construction can continue through wet weather. If boards have been exposed, we recommend that they are left to acclimatise to the ambient temperature and conditions of their new surroundings.

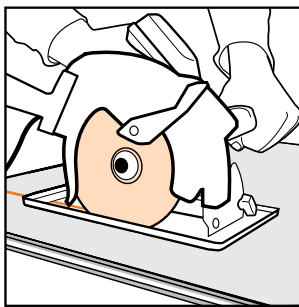
7. Can STS deliver direct to site?

Yes, providing there's a forklift on site or access for a lorry with a tail-lift. Please advise when ordering.

8. What floor finishes are these boards compatible with?

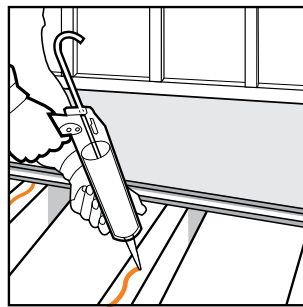
These boards are compatible with most types of floor finishes. Some types of soft flooring may require levelling compound to eliminate any lippage.

Installation



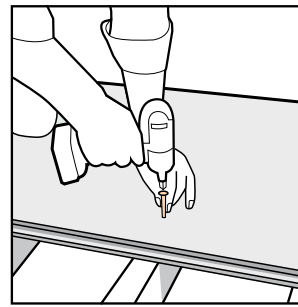
1. Cut boards to size

Cut STS Construction board TG4 using a circular saw fixed with a vacuum extractor and an STS PCD Saw Blade. This method will cut boards easily and mitigate dust. Boards are fixed with board text facing up.



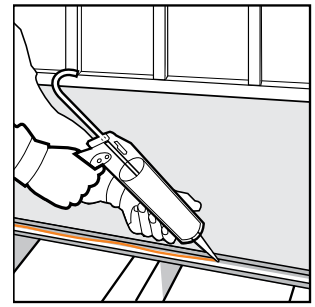
2. Stick boards to joists

STS Construction board TG4 can be fixed to timber or steel joists installed at maximum 600mm centres. To achieve an acceptable finish, it is important that floor joists are level. Apply a bead of STS Mega Strength PU Adhesive to the joist, then position the first board.



3. Secure with screws

Secure with 12 x 50mm STS Fibre Cement Board Screws, placed a minimum of 12mm from the square edge and 5mm from the side of the joist. Ensure screws are placed a minimum distance of 25mm from the tongue and groove edge.



4. Apply adhesive to groove

Lay in a brick bond pattern. Tongue and groove joints do not need to end on a joist but all square edges should be fully supported. Secure subsequent boards by applying Mega Strength PU Adhesive along the length of the board's groove, before inserting the tongue of the next board. Ready to tile or install other surface finish immediately.

Reduce Waste. With STS Construction Boards, you don't need to join on a joist.

Technical specification



General information

Codes and trade name: 5522 (22mm) and 5518 (18mm). STS Construction Boards TG4 / 600mm x 1200mm

Description: The STS Construction Board TG4 is used for installing floor substrates on metal or timber structures. The boards can safely resist the efforts generated by temporary and permanent loads. Any type of floor can be installed on them. They have tongue and groove joint edges that guarantee the mechanical joint between boards.

Product components

Portland cement, cellulose fibres, sand, water and other minor aggregates. The boards fulfill the requirements of resistance, safety, and durability required in the construction of buildings, as well as the most stringent environmental regulations. When exposed to moisture, the STS Construction Board TG4 doesn't change shape, rot or expand like chipboard, plywood and other timber-based materials. Fully compatible with most types of tile adhesives, timber adhesives such as MS polymers, PU Acrylic, etc. Accepts ceramic tiles, timber flooring, etc. Please contact our technical department for further compatibility information.

Storage

STS recommends that boards are stored and handled in a manner to prevent deterioration and damage. The product should be protected from atmospheric actions, excessive humidity and temperature changes, such as rain, sun, winds and moisture. STS boards must always be stored flat. If boards are stored outside they must always be fully covered with a waterproof tarpaulin.

Acclimatisation

STS Construction Board TG4 must be protected from moisture and weather prior to installation. Although they will not deteriorate after installation even if subject to adverse weather conditions, it is recommended that if this is likely to happen a coat of waterproof primer, such as SBR, will reduce moisture ingress. Before the final finish is laid, boards should be thoroughly cleaned and allowed to acclimatise to the final ambient temperature and moisture conditions of the building. If piped under floor heating is installed this can be turned on to assist with acclimatisation.

Properties	Units	Performance	
		18mm	22mm
Density	Kg/m ³	>1200	>1200
Weight	Kg/Board	18.8	24.8
Thickness	mm	18mm	22mm
Dimensions	mm	1200mm x 600mm	1200mm x 600mm
Tolerance	Thickness	+/- 5%	
	Dimension	+/- 1mm	
	Weight	+/- 5%	
Mechanical Characteristics			
Modulus of Rupture EMC - Min	MPa or N/mm ²	10	
Free Moisture Content	%	6	
Water Absorption - submersion after 22 Hrs	%	36	
Lamina Bond Strength	MPa or N/mm ²	0.9	
Additional Characteristics			
Thermal Conductivity (K) (30° C Mean Temperature)	W/M.k	0.172	
pH Value	-	10.4	
U Value	-	0.1047 Wm ² K	0.1279 Wm ² K
Fire Rating	-	Class A1	

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 visit: sts-uk.com

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