

Product Application Guide: Schlüter®-DITRA 25 over Suspended Timber Substrates

Ceramic and stone tiles are durable, easy to maintain and hygienic, which represents the ideal coverings. However, today's lightweight and fast track construction methods can make the installation of hard surface coverings particularly challenging. In order to protect the integrity of the tile assembly, an underlayment that performs multiple functions is required.

Schlüter®-DITRA 25 is specifically designed to allow the installation of ceramic and stone tile over most even, rigid and load bearing substrate. The integration of Schlüter®-DITRA 25's uncoupling, waterproofing, load distribution and vapour management functions make consistent results viable.

All wood materials including plywood, framing members and joists are subject to expansion, contraction, bending and deflection as a result of changes in moisture content and loading. These deformations fluctuate and are continual throughout the life of the building structure.



Areas of application:

- Over even and structurally sound external grade plywood, which has been constructed in accordance with clause 6.3.4 within BS 5385-3:2007.
- Chipboard flooring is viable but certain impregnated flooring e.g. fire retarding, water resistant types, may need to be pre-treated or overlaid with external grade plywood.
- Interior dry or wet areas.

Limitations:

- Minimum tile format 50 mm x 50 mm
- Tile thickness of less than 6 mm.
- The adhesive layer over Schlüter®-DITRA 25 should not exceed 10 mm.
- Where hydronic heating pipes are used beneath the timber surface, this usually precludes the inclusion of additional supports and noggins, which may cause stability and rigidity issues. In these cases we can only suggest that Schlüter®-DITRA 25 will minimise potential risks.
- Timber plank tongue and groove flooring should be overlaid with external grade plywood in accordance with BS 5385-3.
- Direct fixing of rigid flooring to floating timber flooring structures entails a degree of risk and should be avoided. In application where floating/acoustic substrate assemblies are used we can only suggest that Schlüter®-DITRA 25 will minimise potential risks.
- Where stone tiles are being used BS 5385-5 and Stone Federation Great Britain guidance suggests that a double layer of timber sheeting is used to construct a suitably stable and rigid substrate.

Requirements:

- Timber substrates must be constructed in line with the tiling codes of practice BS 5385-3
- Ensure all tiles are solidly bedded and no voids are present.

Substrate Preparation:

- Ensure that timber substrate is sufficiently rigid, stable and load bearing and screw fixed at appropriate intervals.
- Ensure substrate is clean of all contact inhibiting material.
- Any levelling of the assembly must be carried out prior to installing Schlüter®-DITRA 25.
- Additional preparation according to heating supplier.

Movement Joints:

- Schlüter®-DITRA 25 does not eliminate the need for movement joints, these should be installed in accordance with BS 5385 and industry guidelines.
- Movement joints should be installed at tiling perimeters and where tiling meets restraining surfaces.

Setting and Grouting Materials:

- Water based resilient flooring dispersion adhesive (e.g. ARDEX AF200 or similar), or appropriate cementitious tile adhesive can be used to bond Schlüter®-DITRA 25 to the timber substrate. Follow supplier's advice regarding any appropriate priming requirements.
- Appropriate cementitious tile adhesive conforming to BS EN 12004: 2007.
- Appropriate cementitious grout conforming to BS EN 13888: 2002
- Where large format tiles are used the 'floating and buttering' technique is advised. This requires the back of the tiles to be skimmed with adhesive to give an even surface, then immediately installed into a fresh ribbed adhesive bed, ensuring that as far as practically possible, no voids remain under the tiles.
- Certain moisture sensitive tiles will need special consideration – see Other Considerations.

Other Considerations:

- Where a waterproof floor is required, all Schlüter®-DITRA 25 joints and perimeter connections be sealed with Schlüter®-KERDI-KEBA and [Schlüter®-KERDI-COLL](#), as per our standard recommendations.
- Certain moisture sensitive stones, e.g. agglomerate stone or resin backed tiles, may require special setting materials, please consult the stone supplier and Schlüter-Systems for more information.
- Where mixed substrates are present, e.g. timber floor to concrete/screed floor, Schlüter®-DITRA 25 should NOT be continuous across these junctions. A [Schlüter®-DILEX](#) intermediate movement joint profile should be installed in the tile covering directly above the junction between the two substrates.
- If electrical undertile heating is to be considered with the tile covering, we recommend the use of [Schlüter®-DITRA-HEAT-E](#) our electrical heating system which integrates with a unique uncoupling mat.



Additional Resources:

- BS 5385-3,BS5385-4 & BS 5385-5
- The Tile Association publication – Tiling to Timber Sheets & Boards
- The Tile association publication – Movement Joints in Internal Tiling
- Stone Federation Great Britain – Natural Stone Flooring
- BS 8000-11 Workmanship on building sites.

For project specific guidance and recommendations please consult our Technical Department:

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