**Moisture in Subfloors**

Moisture testing of all subfloors is essential before installation can begin. This is true of new and old buildings. Moisture testing must be carried out and recorded. All moisture tests must be undertaken in accordance with local regulations (e.g. BS 8203 for UK) and using an appropriate method to suit the subfloor type.

The subfloor may be considered dry when the relative humidity is 75% or below.

If readings are above this level, a surface damp proof membrane can be applied. Consult manufacturers for instructions. Alternatively subfloors can be given sufficient time to dry.
Amfico Signature, Spacia, Form, First, Signature 36+ and Spacia 36+
Installation Guidelines

Timber floors
Existing Floorboards
Loose floor boards should be firmly nailed down and any damaged boards replaced. If necessary, the boards should be planed and/or levelled with a suitable levelling compound prior to covering with plywood. See section on Plywood Overlays.
Wood subfloors that exhibit excessive deflection, or are “springy” or “give” when walked on, are not suitable for installing Amtico tiles unless suitable remedial work is carried out.
Chipboard, Hardboard, Particleboard
Tiles should not be adhered directly to such subfloors whether they are free floating or fixed, and floors should always be overlaid with plywood prior to installation of tiles. See section on Plywood Overlays.

Wood Block Floors
Existing wood block floors laid onto a concrete base are unsatisfactory as an underlay for resilient floors, even when plywood has been fitted. Such floors must be lifted and the subfloor suitably prepared.

Plywood Overlays
Plywood should be a minimum nominal thickness of 5.5 mm with a Plywood classification EN636-2 or 3, and a glue bond classification EN314-2 Class 3 Exter. The thickness selected should be determined by the quality of the surface being covered.

Existing resilient floors (with the exception of Amtico Access and Amtico Click). Generally, the old flooring should be removed and the base prepared to suit the type of subfloor uncovered. Please refer to relevant section.

Existing Resilient Floors
It is recommended that Amtico products are not directly applied over existing resilient floors (with the exception of Amtico Access and Amtico Click). Generally, the old flooring should be removed and the base prepared to suit the type of subfloor uncovered. Please refer to relevant section.

Some older resilient tiles and adhesives can contain asbestos. In case of doubt, contact the relevant local authority for advice on their removal and disposal.

Terrazzo, Stone, Quarry tiles
Some existing flooring materials such as quarry tiles, ceramic or terrazzo may be suitable for the installation of Amtico tiles if properly prepared. These bases may be sufficiently porous to allow moisture to pass through to the back of the tile, and must be checked for moisture and damp-proofed if necessary. Worn and damaged areas must be repaired, including any tiles that are insecure, which must be removed.

The surface must be thoroughly cleaned of all sealants and varnishes, as well as foreign matter such as oil, grease, wax, etc. It is recommended that a suitable mechanical method is used to prepare the surface, as this will also provide a satisfactory surface ready for preparation. Please refer to section titled Levelling / Smoothing Compounds for Solid Subfloors.

Metal
(i) Direct Application
The metal surface should be cleaned/degreased and then prepared by grinding or scarifying to ensure that it is clean and free from any contamination, such as rust or metal oxide. It should then be mechanically abraded to give a surface key. Amtico tiles can then be installed onto the prepared surface using Amtico International Universal 2-Part Adhesive. Note that under no circumstances should a water-based adhesive be used for bonding directly to metal.

(ii) Indirect Application
The metal surface should be cleaned/degreased and then prepared by grinding or scarifying to ensure that it is clean and free from any contamination, such as rust or metal oxide. It should then be mechanically abraded to give a surface key.

A suitable primer should be applied to the metal surface prior to putting down a suitable compound, which must be applied as recommended by the manufacturer.

Once the levelling compound has dried, any adhesive from our range can potentially be used subject to the restrictions described in the Adhesive Section.

Raised Access Floors
Amtico tiles cannot be fitted directly to raised floor panels. Where this is required, the panels should be level and stable, and then overlaid with plywood, using appropriate fixings to suit the panels surface - see section on Plywood Overlays.

Note that Amtico Access has been specifically developed for fitting directly onto raised access floor panels.

Underfloor Heating
There are various types of underfloor heating systems available – including hot water pipes embedded in the subfloor and electrical systems that can be laid onto the surface of the subfloor. In all cases, the temperature limitations are the same – the heating system must operate so that the temperature at the subfloor surface (i.e. the adhesive interface) should not exceed 27°C.

The heating system must be commissioned before the floor tiles are installed, to ensure that the subfloor is stable, the heating system is working as required with no leaks or cable breaks.

Underfloor heating should be switched off for 48 hours before, and should not be switched back on until 48 hours have elapsed after installation. It is recommended that the heating is slowly re-applied avoiding full operating temperature for 7 days.

With underfloor heating systems, it is the responsibility of the manufacturer and/or installer to recommend appropriate procedures and materials for producing a surface suitable for installing floor tiles. For electrical systems, this will require that the heating elements are fully embedded in a well-bonded and appropriate levelling compound, and that the temperature is adequately controlled to maintain the temperature at the subfloor surface at a maximum of 27°C.

Care should be taken in the placing of large insulating items such as rugs, beanbags and towels onto floors containing underfloor heating. This can result in localised “hot-spots” which may lead to discoloration of the tiles. No responsibility can be accepted under these circumstances.
Adhesive Selection & Application

Recommended Adhesives

Only Amtico adhesives should be used – others may not give adequate performance and could fail.

Amtico SF Adhesive
SF Adhesive is a very low emissions (EC1 Plus), water-based acrylic adhesive with a working time of 1 hour that is recommended for use in all areas except those subject to heat and moisture.

Amtico PS Adhesive
PS Adhesive is a water-based acrylic adhesive that has an extended working time of 3 hours and is recommended for all areas except those subject to temperature change or moisture.

Amtico HT Adhesive
HT Adhesive is a very low emissions (EC1 Plus), single-part, wetset water-based acrylic adhesive that has very good temperature resistance; it has a working time of 30 minutes.

It is recommended for areas subject to some heat variations, such as conservatories and areas receiving direct sunlight. It is also suitable for use where underfloor heating has been installed.

Amtico HT Extra Adhesive
Amtico HT Extra is a single part, wet set, water based adhesive with very low emissions (EC1 Plus): it has a working time of 20 minutes.

Recommended for all areas, including those with heat variation and underfloor heating.

Amtico Universal 2-Part Adhesive
Universal 2-Part Adhesive is a wet-set adhesive that can be used for bonding Amtico tiles in wet areas such as bathrooms. It may also be used for high temperature areas. Universal 2-Part has a working time up to 60 minutes, is entirely solvent free and classified as EC1R Plus very low emissions.

Application:
Follow the instructions on the packaging. Spread adhesive evenly using an A2 trowel. Do not use worn trowels.

Only spread sufficient adhesive that can be covered within the recommended working time.

Tiles should be rolled with a 45kg (100lbs) roller after installation to flatten the adhesive ridges, and then again approximately 20 minutes after this to ensure full contact.

Always clean away excess adhesive before it is allowed to dry – use a soft cloth moistened with Amtico Adhesive Remover. Dried adhesive can be removed by carefully scraping it off the tile, or by using a 3M red pad moistened with Amtico Adhesive Remover.