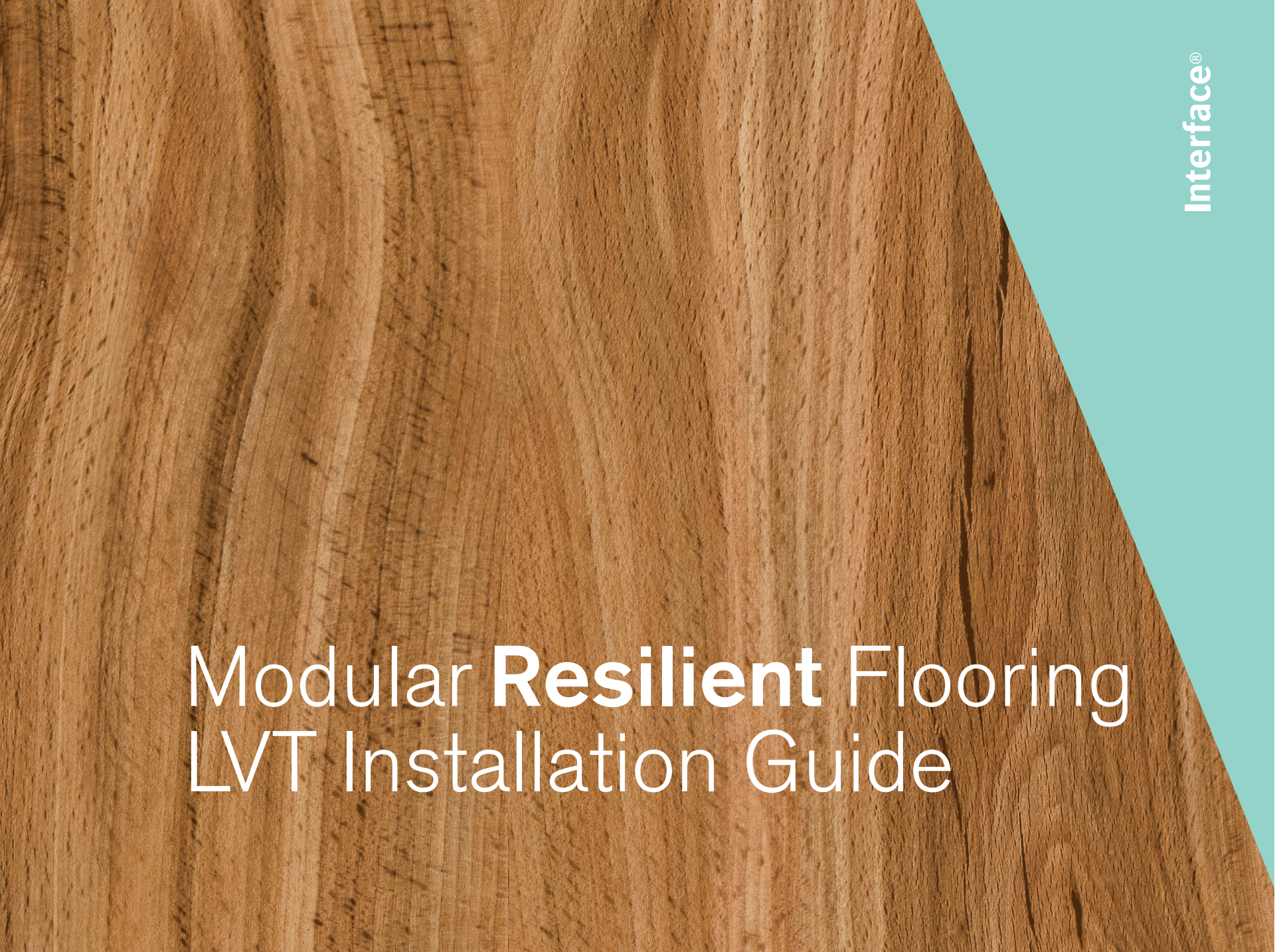


Interface®

Modular **Resilient** Flooring LVT Installation Guide

It is recommended that LVT (Luxury Vinyl Tile) floor covering installation shall not begin until all other trades are completed. All substrates to receive LVT require proper moisture testing.

Use only Portland based patching and leveling compounds. Do not install resilient floor covering over gypsum based patching and/or leveling compounds.

Material should always be visually inspected prior to installation. Any material installed with visual defects will not be considered a legitimate claim as it pertains to labor cost.

When moving any type of furniture or heavy equipment, protect the floor by covering with plywood, Masonite or other hard shell material to prevent scratching or permanent damage.

Use appropriate protectors under furniture. These should be felt or other soft material specifically designed to protect the hard surface from scratches or damage to the wear layer.

These Installation Instructions cover most installation procedures. If you run across a situation that isn't addressed in this document or requires more detailed assistance, please contact your local Interface Account Manager or Customer Service. Should you encounter any conditions or defects during installation that could jeopardize the installation or affect the installation procedure, you should STOP the installation immediately and call your local Interface Account Manager or Customer Service.

The LVT products are warranted in accordance with Interface's Standard LVT Product Warranty. If you do not have a copy of Interface's Standard LVT Product Warranty and wish to obtain one, call your local Interface Account Manager or Customer Service or visit our website at www.interface.com.

WARNING: IN THE EVENT THAT ANY ASBESTOS-CONTAINING MATERIALS OR OTHER HAZARDOUS MATERIALS ARE ENCOUNTERED DURING INSTALLATION, YOU SHOULD STOP THE INSTALLATION IMMEDIATELY AND OBTAIN ASSISTANCE FROM A QUALIFIED REMEDIATION CONSULTANT OR CONTRACTOR PRIOR TO PROCEEDING.

Storage and Handling

Flooring material and adhesive must be acclimated to the installation area a minimum of 48 hours prior to installation.

Store cartons of tile or plank products flat and squarely on top of one another. Preferably, locate material in the "center" of the installation area (i.e. away from vents, direct sunlight, etc.). Storing cartons in direct sunlight may affect proper acclimation by inducing thermal expansion/contraction.

When palletizing on a jobsite, vinyl tiles (squares or planks) need to be stacked two (2) rows high side by side with no airspace between and then quarter turned for two (2) rows side by side, not to exceed 12 boxes high. A 6mm or thker plywood must also be placed on the pallet first. Do not stack pallets two (2) high unless utilizing a 7.5mm thick plywood cap between pallets.

Preinstallation Site Visit

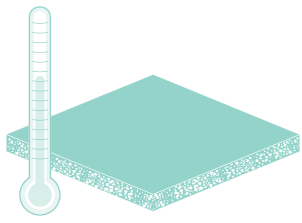
New concrete needs at least 90 days to dry under ideal conditions. Lightweight concrete and concrete poured above grade in metal pans take a considerably longer time to dry. Installation cannot begin until it is fully dried and in compliance with moisture and alkalinity requirements.

Areas to receive resilient flooring should be adequately illuminated during all phases of the installation process.

Controlled environments are critical. Fully functional HVAC systems are the best way to ensure temperature and humidity control.

DO NOT install resilient flooring products until the work area can be temperature controlled.

The permanent HVAC system must be operational and functional and set to a minimum of 18°C or a maximum of 29°C for a minimum of 7 days prior to, during, and after installation. Once the installation is complete, the temperature should not exceed 29°C.



Subfloor Information

Note: All substrates to receive resilient flooring shall be dry, clean, smooth and structurally sound. They shall be free of dust, solvent, paint, wax, oil, grease, residual adhesive, adhesive removers, curing, sealing, hardening/parting compounds, alkaline salts, excessive carbonation/laitance, mold, mildew and other foreign materials.

Wood Subfloors

Wood subfloors must be structurally sound and in compliance with local building codes.

It is recommended that your chosen underlayment grade panels be designed for installation under resilient flooring and carry a written warranty covering replacement of the entire flooring system

Double-layered plywood subfloors should be a minimum 26mm total thickness with at least 45mm well ventilated air space beneath.

Insulate and protect crawl spaces with a vapor retarder covering the ground.

Particleboard, chipboard, hardboard or similar are not recommended subfloor materials and require the additional layer of 5.5mm approved underlayment.

DO NOT install over sleeper construction subfloors or wooden subfloors applied directly over concrete

Underlayment panels can only correct minor deflection deficiencies in the subfloor while providing a smooth, sound surface on which to adhere the resilient flooring

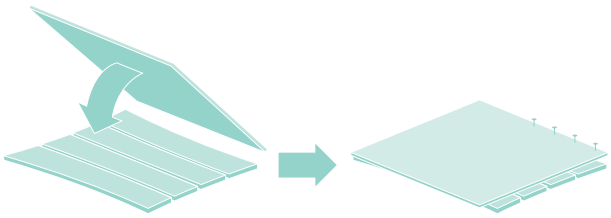
Any failures in the performance of the underlayment panel rest solely with the panel manufacturer and not with Interface.

Interface modular resilient flooring is not recommended directly over fire-retardant treated plywood or preservative treated plywood.

The materials used to treat the plywood may cause problems with adhesive bonding. An additional layer of 5.5mm thick underlayment should be installed.

Strip-Plank Wood Flooring

Due to expansion/contraction of individual boards during seasonal changes a 5.5mm or thicker underlayment panel must be installed over these types of subfloors



Raised Access Floors

The access panels should be manufactured according to EN12825 (or equivalent) and installation should meet the following criteria.

Gaps Between Panels: Maximum gap between panels shall not exceed 1mm.

There should be no flexing or movement of the system/panels, this should be corrected before installation.

Any unstable or uneven panels should be repaired or replaced.

Generally, when LVT is installed directly over a Raised Access Floor without an underlayment some degree of panel telegraphing may be visible. If there are concerns about the suitability of the Raised Access Floor for direct application of the LVT due to damage, instability, unevenness or quality issues of the RAF panels then the entire area should be overlaid with an approved underlayment to prevent any telegraphing of the panels through to the surface of the LVT.

Post installation, protection must be given to the system to ensure no damage is imparted to the access floor system or the installed LVT during heavy point loading such as movement and or installation of furniture.

Note: Interface is not responsible for the impact that any subsequent movement of the building or subfloor may have on the LVT installation or product itself.

Note: LVT installed over an access floor should be considered a permanent installation as it will not provide the ease of uplift and re-installation as carpet tile does in accessing the underfloor void.

Note: LVT squares and planks are not designed to be installed in register with the panels and should overlap the panels ensuring that the LVT joints do not come too close to the joints of the access panels.

Concrete Subfloors

Before installing Interface LVT over a new or existing concrete subfloo , you must test the moisture and alkalinity levels of the concrete. All concrete substrates should be tested for moisture by use of the in Situ Probe RH test method (ASTM F 2170) and pH following ASTM F 710 guidelines.

For installation over concrete with up to 95% RH and pH up to 12.0, you may install with Interface's TacTiles® connectors in conjunction with RLA Polymers Green Solutions Nu Slab Seal System (GS420). All Green Solutions Nu Slab Seal (GS420) written requirements for product application, including but not limited to moisture and pH testing protocols, must be met for Interface warranty eligibility. More information concerning the proper use of Green Solutions Nu Slab Seal (GS420) can be obtained through your local RLA Polymers representative or by visiting www.rlagroup.com.au

Subfloor Information (continued)

For installation over concrete with up to 90% RH and pH up to 9.0, you may install with Interface's TacTiles connectors provided the following conditions are met:

a. The concrete slab must be a new, bare concrete less than one year old from date of pour.

b. The slab must be on or above grade.

c. On grade slabs must have a functional vapor barrier under the entire slab.

d. An above grade slab must be a suspended slab or be poured in a vented pan.

For installation over concrete with up to 85% RH and pH up to 9.0, you may install over all other suitable concrete slab conditions when installed with Interface's TacTiles connectors or Intertac+ adhesive.

Note: Moisture and pH test results reflect only the conditions of the concrete at the time of testing. If the concrete moisture exceeds these limitations, do not proceed with the installation. Interface will not be responsible for failures, problems, or damage arising from high moisture, high alkalinity or other subfloor conditions

NEW AND EXISITING CONCRETE SUBFLOORS SHOULD MEET THE GUIDELINES OF THE LATEST EDITION OF ACI 302 AND ASTM F 710, "STANDARD PRACTICE FOR PREPARING CONCRETE FLOORS TO RECEIVE RESILIENT FLOORING" AVAILABLE FROM THE AMERICAN SOCIETY FOR TESTING AND MATERIALS, 100 BARR HARBOR RIVE, WEST CONSHOHOCKEN, PA 19428; 610.832.9585; HTTP://WWW.ASTM.ORG

Substrates shall be smooth, structurally sound, dry, clean and free of all foreign material such as dust, wax, solvents, paint, grease, oils, old adhesive residue, curing/hardening compounds, sealers and other foreign material.

On or below grade slabs must have an effective vapor barrier under the slab.

LEVELNESS - Concrete floors shall be flat and smooth within 1mm in 1.8mts or 1.5mm in 30mts. F-number System: Overall values of FF 36/FL 20 may be appropriate for resilient floor coverings

Expansion and isolation joints in concrete are designed to allow for the expansion and contraction of the concrete. Resilient flooring products should never be installed over expansion joints. Expansion joint covers designed for use with resilient floor coverings should be used. Control joints (saw cuts) may be patched and covered with resilient once the concrete is thoroughly cured, dry and acclimated.

Radiant Heated Subloors

Radiant heated substrates must not exceed 29°C surface temperature.

LVT must be installed over heated substrates using full set adhesive such has Polymer 265 full set adhesive applied with a V1 (1.6mm) notch trowel.

Seven days prior to installing resilient products over newly constructed radiant heated systems, make sure the radiant system has been on and operating at maximum temperature to reduce residual moisture within the concrete.

24 hrs. prior to installation lower the temperature to 21°C and maintain that temperature for 48 hrs. after installation. After continuous operation of the radiant system, ensure the temperature of the surface does not exceed 29°C.

Use of an in-floor temperature sensor is recommended to avoid overheating.

WARNING! DO NOT SAND, DRY SWEEP, DRY SCRAPE, DRILL, SAW, BEADBLAST OR MECHANICALLY CHIP OR PULVERIZE EXISITING RESILIENT FLOORING, BACKING, LINING FELT, ASPHALTIC (CUTBACK) ADHESIVES OR OTHER ADHESIVES.

These products may contain either asbestos fibers and/or crystalline silica. Avoid creating dust. Inhalation of such dust is a cancer and respiratory tract hazard. Smoking by individuals exposed to asbestos fibers greatly increases the risk of serious bodily harm. Unless positively certain that the product is a non-asbestos-containing material, you must presume it contains asbestos. Regulations may require that the material be tested to determine asbestos content and may govern the removal and disposal of material. See current edition of the Resilient Floor Covering Institutes (RFCI) publication Recommended Work Practices for Removal of Resilient Floor Coverings for detailed information for instructions on removing all resilient covering structures. For more information go to www.rfci.com.

Existing Resilient Floor Covering

Must be single layered, non-cushion backed, fully adhered and smooth.

Show no signs of moisture or alkalinity.

Waxes, polishes, grease, grime and oil must be removed.

Cuts, cracks, gouges, dents, and other irregularities in the existing floor covering must be repaired or replaced

Embossing leveler recommended to aid in proper bonding and to prevent telegraphing.

Do not install over rubber based substrates.

Subfloor Information (continued)

NOTE: THE RESPONSIBILITY OF DETERMINING IF THE EXISITING FLOORING IS SUITABLE TO BE INSTALLED OVER TOP OF WITH RESILIENT, RESTS SOLELY WITH INSTALLER/ FLOORING CONTRACTOR ON SITE. IF THERE IS ANY DOUBT AS TO THE SUITABILITY, THE EXISTING FLOORING SHOULD BE REMOVED, OR AN ACCEPTABLE UNDERLAYMENT INSTALLED OVER IT. INSTALLATIONS OVER EXISITING RESILIENT FLOORING MAY BE MORE SUSCEPTIBLE TO INDENTATION.

Existing Quarry Tile, Terrazo, Ceramic Tile, Poured Floors (Epoxy, Polymeric, Seamless)

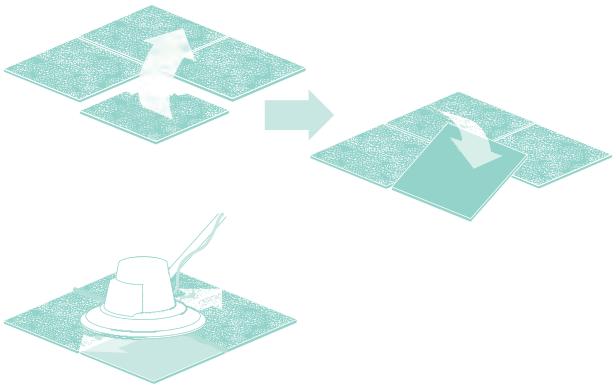
Must be totally cured and well bonded to the concrete.

Must be free of any residual solvents and petroleum derivatives.

Show no signs of moisture or alkalinity.

Waxes, polishes, grease, grime and oil must be removed.

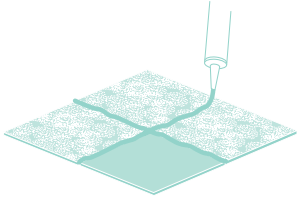
Cuts, cracks, gouges, dents and other irregularities in the existing floor covering must be repaired or replaced



Fill any low spots, holes, chips and seams that may telegraph through the new flooring

Grind any highly polished or irregular/smooth surfaces.

Tile grout joints and textured surfaces must be filled with an embossing leveler or substrate manufacturer approved material.



Old Adhesive Residue

Adhesive residue must be dealt with in one of two ways:

1. It may be mechanically removed by methods such as: sanding, grinding, bead blasting or scarifying. Encapsulate the residual adhesive with a product specifically designed for adhesive encapsulation.
2. A self-leveling Portland based underlayment may be applied over it. Check with a substrate manufacturer for suitability, application instructions, and warranties.

Note: Never use solvents or citrus adhesive removers to remove old adhesive residue. Solvent residue left in/on the substrate may affect the new adhesive and floor covering. Note: The average number of TacTiles connectors needed depends on the size of the LVT tile and the installation method used. TacTiles should be placed on every tile corner.

Installation Methods

Interface LVT is designed to be installed as an integrated system with Interface carpet tile. It has been developed to facilitate the use of both TacTiles and Intertac+ for installation.

TacTiles are the perfect installation method for small general areas upto 50m2 as they are glue free, eliminate VOC's and create a floating floor which makes replacement easy and simple.

For larger areas and areas with heavy traffic we recommend the use of Intertac+ pressure sensitive adhesive. Intertac+ has been developed for use in both carpet and LVT installation and provides excellent coverage, adhesion and release capability. Intertac+ is formulated with Intersept biocide which acts as a mold inhibitor.

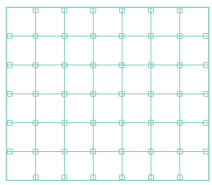
NOTE: IN HIGH TEMPERATURE APPLICATIONS OVER 29 DEGREE CELSIUS WE RECOMMEND THE USE OF PERMANENT ADHESIVE.

Installation With TacTiles®

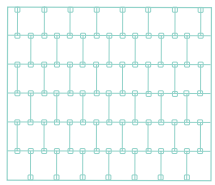
50cm Tile Averages:

- Monolithic, Quarter-Turn, Non Directional – 4 TacTiles Connectors/m2.
- Ashlar, Brick – 6 TacTiles Connectors/m2

Quarter-Turn, Monolithic & Non Directional Installation



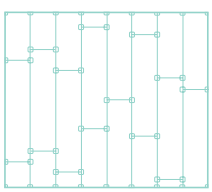
Brick and Ashlar Installation



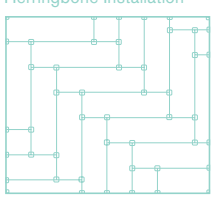
25cm x 1m Plank Averages:

- Ashlar – 7 TacTiles Connectors/m2.
- Herringbone – 8 TacTiles Connectors/m2

Ashlar Installation



Herringbone Installation



Interface recommend the use of TacTile for installation of LVT products for the following areas:

- Areas up to approximately 50m2.
- Areas not exposed to direct sunlight or temperatures in excess of 29 degree celsius.

Interface LVT products can be installed with TacTile applied at the rate set out in this manual.

TacTiles connectors should be placed on each corner of each LVT tile (squares and planks).

TacTiles connectors should also be placed in the middle of the 25cm x 1m LVT planks.

The LVT should be cut net to the wall. Tiles should be placed underneath the wall until it stops at the seal.

Some applications may require an additional TacTiles connector in the center where tile edges meet. If unsure consult your local Interface Account Manager.

Note: TacTiles should not be used to install LVT over a heated subfloor where a full set adhesive such has Polymer 265 applied with a 1.6mm notch trowel should be used.

Installation With Pressure Sensitive Adhesive (100% application by 1.6mm notched trowel)

Interface recommend the use of Intertac+ adhesive for installation of Interface LVT products for the following areas:

- Areas not exposed to direct sunlight or temperatures in excess of 29 degree celsius.

Apply Intertac+ adhesive with a V1 (1.6mm) notch trowel to a correctly prepared subfloor.

Allow the Intertac+ adhesive to "tack up" and then lay the LVT into the adhesive.

Immediately after the LVT flooring is placed roll the area with a 45kg roller ensuring complete contact of the LVT with adhesive.

If unsure consult with your Interface Account Manager for further detail.

Note: Open time of the Intertac+ adhesive may vary based on the ambient conditions for temperature, humidity, substrate porosity and air flow. All porous subfloors should be primed before application of Intertac+ adhesive. If unsure about the subfloor condition, it is best to perform a trial bond test before commencing installation.

Installation with Polymer 265 Full Set Adhesive

Interface recommend the use of full set adhesive (eg.: RLA Polymer 265 - 100% application by 1.6mm notched trowel) for installation of LVT products for the following areas:

- Any areas not exposed to direct sunlight or temperatures in excess of 29 degree celsius.
- Any area where foot or rolling traffic may be deemed extra heavy. Eg.: Outside a goods lift, delivery areas where pallet trolleys or similar may be used.
- Polymer 265 can be used on heated subfloors where the maximum floor temperature will be less than 27 degree celsius.

Note: For areas exposed to direct sunlight such as in front of windows or other high temperature areas the default adhesive should be Holdfast 555 two part PU adhesive.

Apply Polymer 265 full set adhesive with a V1 (1.6mm) notch trowel to a correctly prepared subfloor.

Allow the full set adhesive to semi tack up and then lay the LVT into the adhesive ensuring adhesive transfer occurs.

Immediately after the LVT flooring is placed roll the area with a 45kg roller ensuring complete contact and adhesive transfer occurs between the LVT and the adhesive.

If unsure consult your local Interface Account Manager for further detail.

Note: Open time of the full set adhesive may vary based on the ambient conditions for temperature, humidity, substrate porosity and air flow. All porous subfloors should be primed before application of the full set adhesive. If unsure about the subfloor condition, it is best to perform a trial bond test before commencing installation.

Installation Notes

- Subfloor must be tested for moisture and pH levels and remedial action taken if the test results are found to be outside Interface recommendations.
- Subfloor must be checked for smoothness & level and remedial action taken if the results are found to be outside interface recommendations.
- Follow Interface recommendation for ambient temperature and humidity conditions.
- Installation over a subfloor that does not conform to the Interface recommendations for moisture, pH, floor level and ambient temperature and humidity conditions may void the product warranty.
- Interface recommend the use of adhesive systems as noted in this manual. The use of a non-recommended adhesive may void the product warranty.
- Interface recommends using floor protection after installation.
- DO NOT use self-adhesive peel up plastic based protection systems.
- Polymer 265 cannot be applied directly over a non impervious subfloor, the subfloor pores will need to be opened by grinding or a coat of feather finish may be required.
- For further detail on the use of Polymer 265 please refer to the manufacturer's product data sheet.

Adhesive Method	Subfloor detail	Moisture %	pH	Notes	Area Examples
TacTile (Releasable)	Bare concrete subfloor	# Up to 90%RH by In Situ Probe # Up to 80%RH by Sealed Hood	Up to pH9	# Size limited to 50 m2	# Waiting area # Small office # Breakout area
TacTile (Releasable)	Subfloor sealed with GS420	# Up to 95%RH by In Situ Probe # Up to 85%RH by Sealed Hood	Up to pH12	# Size limited to 50 m2	# Waiting area # Small office # Breakout area
Intertac+ (Pressure sensitive releasable)	Bare concrete subfloor	# Up to 90%RH by In Situ Probe # Up to 80%RH by Sealed Hood	Up to pH11	# No limit on area size # Areas not exposed to temperature higher than 29C # Areas exposed to normal rolling loads	# General office # Breakout areas # Normal office traffic
Intertac+ (Pressure sensitive releasable)	Subfloor sealed with GS420	# Up to 95%RH by In Situ Probe # Up to 85%RH by Sealed Hood	Up to pH12	# No limit on area size # Areas not exposed to temperature higher than 29c # Areas exposed to normal rolling loads	# General office # Breakout areas # Normal office traffic
Polymer 265 (Permanent stick)	Bare concrete subfloor	# Up to 90%RH by In Situ Probe # Up to 80%RH by Sealed Hood	Up to pH9	# No limit on size # Heated subfloors less than 27c # Areas in front of windows with direct sunlight less than 29 c	# Any areas not exposed to high levels of moisture # Areas exposed to heavy rolling loads and excessive foot traffic
Polymer 265 (Permanent stick)	Subfloor sealed with GS420 An application of feather finish over the GS420 is required	# Up to 95%RH by In Situ Probe # Up to 85%RH by Sealed Hood	Up to pH12	# No limit on size # Heated subfloors less than 27c # Areas in front of windows with direct sunlight less than 29 c	# Any areas not exposed to high levels of moisture # Areas exposed to heavy rolling loads and excessive foot traffic
Holdfast 555 2 part PU (Permanent stick)	Bare concrete subfloor	No limit	No limit	Areas exposed to excessive heat and moisture	# Any areas # Areas in front of windows with direct sunlight over 29c.

Non-Recommended Areas for LVT Installation

Interface does not recommend the installation of LVT products in the following areas:

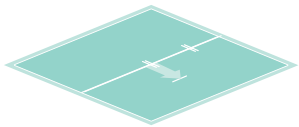
- Any area that will be exposed to over wetting from normal use or harsh cleaning requirements. Eg.: Commercial kitchens, bathrooms, showers, toilets, behind bars, commercial food serving areas.
- Any areas where fork lifts, scissor lifts or similar may be used.

For further assistance on selecting the correct installation method for your project contact your local Account Manager or Interface Technical Services.

Layout and Installation

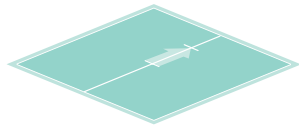
1. Material should always be visually inspected prior to installation. Any material installed with visual defects will not be considered a legitimate claim as it pertains to labor.
2. Make sure all material is from the same batch number (dye lot).
3. Interface LVT (squares and planks) – install using conventional square and plank tile installation techniques. Plank products should have a minimum of 150mm to 200mm seam stagger.
4. Carefully determine where to begin square or plank tile installation based on your center line of the main room.
5. a. Measure to determine the center point and mark. Snap a chalk line.

b. Measure 3mts out from your center point along the chalk line.

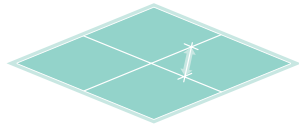


Layout and Installation (continued)

c. Measure 4mts from your center point at a right angle to your chalk line and make a mark.



d. Measure the distance between your marks. It should be exactly 5mts.



Note: If the room is too small for the above measurements, reduce them by half. Measure 1.5mts vertically and 2mts horizontally. The measurement between your marks should be exactly 2.5mts.

6. It is customary to center the rooms and hallways so borders are not less than half a square or plank tile.
7. Working out of multiple boxes at a time is recommended.
8. Make sure cut edges are always against the wall.
9. To properly cut LVT products, score the top side of the material with a utility knife. Bend the product and finis the cut through the backside. This will ensure the cleanest cut. It may be necessary to use a heat gun to cut around vertical obstructions. Allow the heated LVT to return to room temperature before installation.
10. Cutting the product into a fine point may lead to delamination Use an ethyl cyanoacrylate based super glue to help fuse the LVT point together. Be sure to clean all glue from the decorative surface immediately. Alcohol based super glues may cause the vinyl to swell.
11. If using adhesive, roll the plank/tile with a 3 section coated 45kg roller. Re-roll the entire glued floor area with the 45kg roller within the working time of the adhesive. Continue to roll the floor throughout the working day to ensure proper bond.

Replacement of LVT Tile (TacTile Install)

- Take a sharp, thin bladed knife and carefully slide the blade into the join at a point midway from the placement of a TacTile.
- Using the blade lever the edge of the LVT to be replaced so that the tile edge lifts from the floor.
- Grip the tile edge with your fingers and carefully lift the tile breaking the bond with the TacTile.
- Replace existing TacTile with a new one or add in additional new TacTiles.
- Carefully install a new LVT.
- If the installation tension is such that you cannot insert a blade into the join then follow the requirements set out for lifting an LVT from an adhesive installation.

Replacement of LVT Tile (Intertac+ Install)

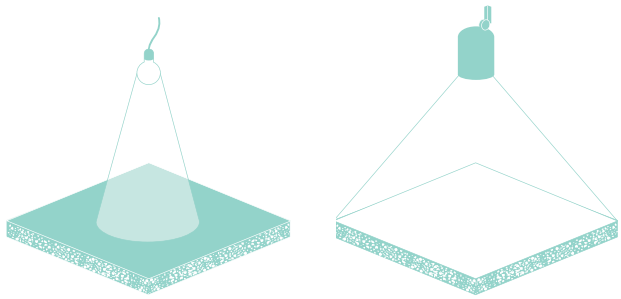
- Take a sharp bladed knife and cut a section out of the middle of the LVT to be replaced.
- In this removed section lever the edge of the LVT slowly moving towards the outer edges of the LVT gradually lifting the tile from the adhesive.
- Carefully lift the tile breaking the bond with the adhesive making sure not to damage the edges of the surrounding LVT.
- If required apply new adhesive.
- Carefully install new LVT.

Tools

Steel Metric Tape
White Chalk Line
Utility Knife with Replacement Blades
Steel Straight Edge
Hammer
Mallet
Tile Cutter with Steel Blade
Carpenter Pencil and Non Permanent Marker
Flat Screw Driver

Lighting

The lighting to be used by the building occupants must be in service for proper inspection of color and joints.



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