



norament[®] INSTALLATION INSTRUCTIONS
Australia version

nora[®]
by Interface[®]

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General Installation Guidelines

All nora® flooring is to be installed by nora® Approved Installers. These nora® Installation Instructions cover the typical projects and circumstances where nora rubber flooring is to be installed. The procedures and recommendations described in this nora Installation Instructions document are developed to provide the best opportunity for a successful nora flooring installation. Any deviation from these instructions may result in an installation failure. Installation and maintenance videos are also available on www.nora.com. If you need assistance, please contact the nora Technical Department in your region.

All appropriate Safety Data Sheets (SDS) and these installation instructions must be read, and fully understood prior to installing any nora product. For all nora® nTx installations, please refer to the nora® nTx Installation Instructions. All nora products are intended for appropriate indoor use only, in high stress commercial and industrial sectors (e.g. hospitals, schools, labs, transportation, radiant heating and caster chair traffic). nora flooring must be installed using recommended adhesives. It is the responsibility of the installer to determine the suitability of the substrate being covered.

Unless stated otherwise follow the specific requirements of ASTM F710 "Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring". For copies of any of the ASTM standards, practices, or test methods, please visit www.astm.org.

When concrete slabs have or are suspected of having ASR (Alkali Silica Reaction) present or hydrostatic pressure, do not proceed; contact the Technical Department.

The prepared substrate must be smooth and ridge free. Use an appropriate patching compound or self-leveling underlayment following the manufacturer's instructions. Patching or underlayment compounds must be moisture, mildew, and alkali resistant. The compounds must provide a minimum of 3000 psi compressive strength when tested in accordance with ASTM C109/C109M "Standard Test Method for Compressive Strength of Hydraulic Cement Mortars - Using 2-in. or 50 mm Cube Specimens" or ASTM C472 "Standard Test Method for Physical Testing of Gypsum, Gypsum Plasters and Gypsum Concrete". Warranties should be obtained from the manufacturer of the installed product.

Any specific requirement for level or flatness must be agreed upon by the owner, end-user, general contractor, and flooring contractor prior to the flooring installation.

NOTE: Tile 'run off' may occur if the substrate is not flat.

Moisture testing as per ASTM F 2170 "Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using in situ Probes" is mandatory.

A water droplet test for absorbency of the concrete or cementitious substrate is always recommended when using RLA Conductive Flooring Adhesive.

Asbestos Warning

Do not sand, dry sweep, dry scrape, drill, saw, shot blast, mechanically chip or pulverize existing resilient flooring, backing, lining felt, asphalt "cutback" adhesive or another adhesive, as these products may contain asbestos fibres and/or crystalline silica. Avoid creating dust. Inhalation of such dust is a cancer and respiratory tract hazard. Unless positively certain that the product is a non-asbestos containing material, you must presume it contains asbestos. Regulations may require the material be tested to determine asbestos content. If you contemplate

the removal of a resilient floor covering structure that contains (or is presumed to contain) asbestos, you must review and comply with all applicable local, state, and federal regulations.

Product Inspection

Prior to installation, the flooring contractor must inspect all nora flooring and accessories to verify the material meets the order specifications. If the wrong product or color is installed, nora systems, Inc. will not be responsible for corrections. All labels indicate product style, color, and batch number. Verify the product on site is accurate and matches the specifications for each area of the installation.

Material defects which are visible before installation cannot be acknowledged when claimed after the installation.

Conditioning

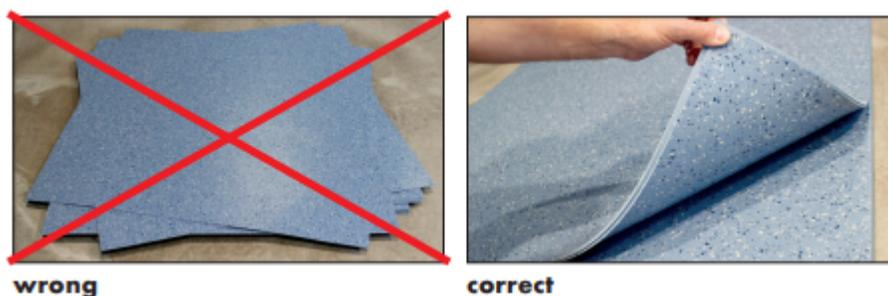
The flooring, adhesives, and accessories must be acclimated in the recommended environmental conditions for at least 48 hours prior to installation. Areas of the flooring subjected to direct sunlight, for example through doors or windows, must be covered using blinds, curtains, cardboard, or similar materials for 24 hours before, during, and for a period of 72 hours after the installation to allow "wet" adhesives to cure.

The installation area must be fully enclosed, weather tight, and climate controlled between 17°C and 24°C and 40% to 60% ambient relative humidity (RH) for at least 48 hours prior, during and 72 hours after installation (do not use gas fuelled blowers). If this is not possible, contact the nora Technical Department.

Avoid conditions where dew point allows for the condensing of moisture on concrete substrates. The substrate must be at least 3°C above dew point to be considered acceptable.

Example: If the ambient conditions are 21°C and 65%RH, the dew point is 14°C, you must not proceed with the installation. The surface temperature must be a minimum of 15°C. Dew point calculation charts are available on the internet.

Please make sure the material is properly stored on site. Tiles need to be stacked neatly, face to face and back to back.



Adhesive Moisture Limits

The maximum allowable internal slab relative humidity levels (with an effective vapor retarder as required) are as follows:

RLA Rubber Floor & LVT Adhesive / RLA Conductive Flooring Adhesive / RLA Two Part Resilient Flooring Adhesive / Dryfix 750 = 85%RH

nora® stepfix and profix tape adhesives = 75% RH

If the moisture test results exceed the maximum allowed, then the installation must not proceed until either the moisture content drops to an acceptable level or an effective moisture mitigation system is used that conforms to ASTM F3010 "Standard Practice for Two-Component Resin Based Membrane Forming Moisture Mitigation Systems for use Under Resilient Floor Coverings" and installed following that manufacturers written instructions.

Moisture Testing

Moisture testing is required on all concrete slabs prior to installation. Test the slab with a testing apparatus that conforms with ASTM F2170 "Standard Test Method for Determining Relative Humidity in Concrete Slabs Using in situ Probes". If for any reason you are unable to drill into the concrete, please contact the nora Technical Department.

Water Droplet Test



Image 1

When using RLA Rubber Floor & LVT Adhesive or RLA Conductive Flooring Adhesive, it is mandatory that the substrate be absorptive. To confirm this, the installer must perform a water droplet test in a sufficient number of places throughout the project. To perform the test, place a 6mm size drop of water (Image 1) on the substrate surface using a water dropper after the substrate surface has been prepared as planned. The water must begin to absorb ≤ 5 minutes to be considered absorptive (Image 2).

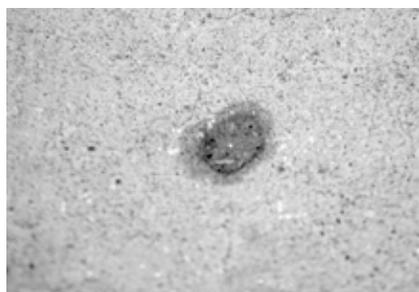


Image 2

Absorptiveness affects the drying time within a concrete substrate, expected open and working time of the adhesive. The adhesive open time will decrease on porous substrates, and areas subjected to air flow such as in the vicinity of open doors or windows. It is the installer's responsibility to understand the working characteristics of the adhesive in all areas of the project and to make any necessary adjustments in preparation or installation techniques to achieve a secure bond.

Substrate Preparation

CONCRETE SUBSTRATES

For new construction, the General Contractor must provide a structurally sound concrete substrate that conforms to ASTM C33/C33M "Standard Specification for Concrete Aggregates". Concrete substrates must not be subject to shrinking, curling, cracking, or moving in any way prior to the application of any nora products. nora systems, Inc. accepts no liability for a failure or complaint due to slab movement of any kind. nora products must not be installed over expansion joints; use an industry standard expansion joint assembly.

When concrete slabs have or are suspected of having ASR (Alkali Silica Reaction) present, do not proceed; contact the nora Technical Department.

Do not use any nora product where hydrostatic pressure can occur.

All on and below-grade concrete substrates require a confirmed permanently effective vapor retarder with a low permeance (≤ 0.10) having a minimum thickness of 10 mils and meets the current requirements of ASTM E1745 Standard Specification for Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs. It must also be placed directly underneath the concrete, above the granular fill or use an effective moisture mitigation system that conforms to ASTM F3010 Standard Practice for Two-Component Resin Based Membrane Forming Moisture Mitigation Systems for use Under Resilient Floor Coverings.

All concrete substrates must be absorptive (see water droplet test), permanently dry (see moisture testing), clean, smooth, and structurally sound as per ASTM F710. In addition, concrete substrates must be free of dust, solvents, paint, wax, varnish, oil, grease, asphalt, old adhesives, and other extraneous materials that may interfere with the bond. Use only mechanical means like diamond grinding with a Diamabrush™ Concrete Prep Plus Tool (or similar) or shot blasting. When using mechanical abrasion equipment ensure that it is equipped with an effective dust shroud and vacuum with Hepa filter. Refer to the Warning section of this installation guide for further instructions regarding the control of airborne particulates such as dust or other substances.

NOTE: The use of a water based sweeping compound is acceptable. No wax or oil based.

To be considered absorptive (for RLA Polymers Rubber Flooring & LVT Adhesive or Conductive Flooring Adhesive) levelling compounds must be at least 3mm thick and installed following the manufacturer's instructions.

NOTE: When mechanical sanding of the compound is required certain compounds may become denser and the surface porosity may be diminished. A water droplet test is recommended to determine the state of porosity (see water droplet test).

Surface cracks, grooves, depressions, control joints or other non-moving joints, and other irregularities must be filled or smoothed with patching or underlayment compound for filling or smoothing. Patching or underlayment compound must be moisture, mildew, and alkali resistant. The compounds must provide a minimum of 3000 psi compressive strength. Mechanically remove all laitance, dirt, debris, and coatings from the fill area. Use a suitable dustless concrete saw with a diamond blade or similar. Do not install over any moving cracks or joints. If the concrete moisture level is too high contact the nora Technical Department and the moisture mitigation system manufacturer. Use products and methods as directed by the nora Technical Department and the moisture mitigation system manufacturer.

Expansion and moving joints must not be covered with any nora product. Use a suitable industry standard expansion joint assembly system. In the event of moving cracks or joints please contact the nora Technical Department for recommendations.

WOOD SUBSTRATES

Timber subfloors should comply with detail set out in AS1884:2021 section 3.6. "Timber, plywood, particleboard and fibre cement sheet subfloors" and have a recommended total minimum thickness of 32mm.

All suspended wood floors must have adequate under floor ventilation and a permanently effective vapor retarder or membrane placed directly on the ground beneath the air space.

Do not install directly over any oriented strand board (OSB), particleboard, lauan, fire retardant treated plywood, or any similar unstable substrates.

Timber subfloors should be prepared to comply with AS 1884:2021 section 3.6.3 "Preparation of timber, plywood and particle board subfloors". For recommended underlays for timber subfloors refer to AS1884:2021 Section 1.4.3 "Underlay and Underlayment"

- Hardboard underlay conforming to AS/NZS 1859.4
- High performance medium density fibreboard conforming to AS/NZS 1859.2
- Plywood underlay of minimum Grade C conforming to AS/NZS2908.2
- Fibre cement sheet underlay conforming to AS/NZS 2908.2

Underlayments must be able to withstand maximum pressure loads as per the following table -

Flooring	Thickness in mm	Max. Pressure Load in N/mm²
norament [®]	2.50-3.2	4
norament [®]	> 3.2	6
norament [®] nTx	3.6	6

GALVANIZED/STAINLESS STEEL AND ALUMINUM SUBSTRATES

Abrade the existing galvanized/stainless steel or aluminum by using mechanical systems (i.e. disk sander with 40-grit sandpaper). Clean the galvanized/stainless steel, or aluminum by sweeping and then wiping with 70% Isopropyl alcohol. Perform an Adhesive Bond test with the appropriate adhesive to confirm an acceptable bond will occur..

REGULAR STEEL SUBSTRATES

All rust must be removed by sand blasting or other mechanical methods. To prevent the steel from rusting again, RLA PU95 bond enhancer must be applied to the steel substrate. Perform an Adhesive Bond test with the appropriate adhesive. Any questions, please contact the nora Technical Department.

OVER EXISTING FLOOR COVERINGS

nora flooring can be installed over existing smooth finished, non-cushioned backed and securely bonded floor coverings (e.g., VCT, natural rubber, linoleum, PVC.) The existing flooring must not have any voids that could telegraph through the nora flooring. nora flooring can also be installed over properly prepared terrazzo, ceramic and quarry tile floors.

The responsibility for determining if the currently installed resilient flooring is well-bonded to the substrate and that any texture or embossment will not telegraph through the new installation rests with the owner, general contractor and flooring contractor.

Note: Installations over existing resilient flooring may be more susceptible to indentations.

To fill voids or surface irregularities, use a patching compound that is suitable for bonding to existing floor coverings. Sand the surface to a smooth finish as needed. A primer may be required so it is important to check with the patch manufacturer for specific mixing and installation instructions. Any product warranties or performance guarantees are the responsibility of the selected manufacturer.

Installation

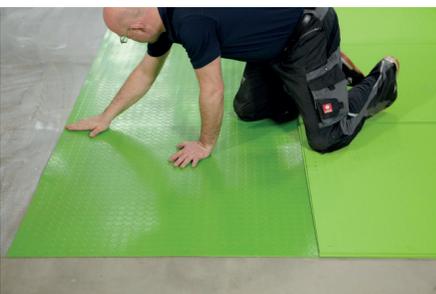
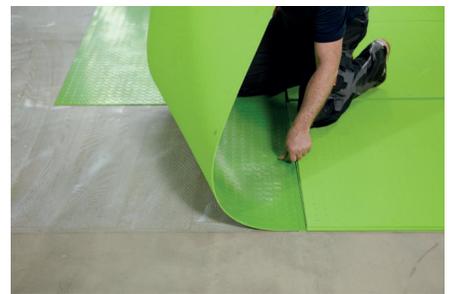
The material layout should be decided by the architect, designer, and end user; however, nora generally recommends that tiles are installed point to point (corner to corner). The tiles have arrows on the backside, and these should always be pointed in the same direction. The exception being norament® arago planks, which can be installed in multiple directions and patterns.

TILE AND PLANKS

Vacuum clean the subfloor then locate your center, and start lines using the 3/4/5 method or a carpenter's square. Balance the layout and use a pencil to mark your starting lines. Dry lay the flooring tiles without adhesive following the design layout. Begin installing from the center of the room following the start lines in both directions, including end cuts but without stress (pressure fitting). Determine a workable section of the installation area. Remove and stack tiles in reverse order. Vacuum clean the subfloor and the back of the flooring again before applying the adhesive. This method ensures correct placement of the tile without exceeding the open time of the adhesive.



Apply the adhesive using the serrated blade and instructions recommended by the manufacturer. Turn over the tiles and place them accurately into the adhesive. Carefully rub the floor covering on its entire surface into place, with a cork board. Then roll the entire surface both longitudinally and transversely with a heavy iron roller (approx. 50kg).



RLA RUBBER FLOORING & LVT ADHESIVE

RLA Rubber Flooring & LVT Adhesive is a water-based acrylic adhesive for the installation of nora rubber floor coverings (2 mm - 4 mm)

Note: Not recommended for use in areas with heavy point loading (e.g. operating rooms, cGMP).

All surfaces to be bonded shall be absorbent, dry, smooth, sound and clean. Subfloors must also be free of wax, grease, oil, polishes, old adhesive, curing compounds, high levels of moisture hydrostatic pressure and any other impurities that may affect adhesion. If mechanical preparation is required, prepare the floor using recommended preparation methods such as shot blasting or diamond grinding, to provide a roughened, clean, sound, and open porous surface. Fold back a workable section of the flooring (normally half of the area). Clean the substrate and the back of the flooring. For 2 to 4 mm flooring, apply the adhesive using a 1.6 mm x 1.6 mm x 1.6 mm V1-notched trowel.

Coverage is achieved up to 5 square metres per litre. Spread adhesive with the recommended notched trowel. Apply adhesive evenly without the formation of puddles or voids. Apply only the amount of adhesive that can be covered within the open time of the adhesive. Allow adhesive to develop some initial tack - generally 5-10 minutes at 20°C before lowering floorcovering into the WET Film of adhesive and rolled to ensure transfer has occurred. Tack-up time will depend upon atmospheric conditions and substrate absorbency.

Carefully place the flooring into position then slowly roll in both directions utilizing a 45 -65 kg. three-section roller. Re-roll again in both directions after 30 minutes. Repeat the process for all remaining areas. Do not allow heavy traffic for 24 hours. Don't allow the adhesive to skin over or dry out, it is important the floorcovering being bonded is installed into the Wet film of adhesive. Do not apply fresh adhesive over drying adhesive. Replace worn trowels to ensure consistent spread rate. Do not re-notch.

Note: An adhesive bond test prior to beginning the installation is recommended to determine both the appropriate open and working time of the adhesive.

Remove any fresh adhesive from the surface of the flooring with water and a clean cloth. Dried adhesive may be removed using 70% Isopropyl alcohol and a clean cloth. Do not wash or perform any maintenance of the floor for a minimum of 72 hours post installation to allow adhesive to cure. Refer to the appropriate SDS for any disposal.

ELECTROSTATIC DISSIPATIVE (ESD) FLOORING (ED PRODUCTS)

For ESD flooring installations, copper tape must be used with RLA Conductive Flooring Adhesive.

The connection to the earthing point responsibility of a qualified electrician. A copper tape (self-adhesive, approx. 10.0 mm x 0.08 mm) is fixed to the prepared subfloor (approx. 1.5 m). For rooms larger than approx. 40m², at least two connections to the earthing points are required. Depending on the layout, more than two connections can be necessary.

ed floorings must always be joint sealed with nora® 1 component cold weld. Joint sealing should take place no earlier than 24 hours after installation. Please be aware that the drying time for the cold weld is at least 12 hours (see Cold Welding).

NOTE: If a minimum insulation for the protection of persons is required (see country specific regulations) it must be ensured that the insulation of the flooring is not impaired by humidity.

RLA CONDUCTIVE FLOORING ADHESIVE

RLA Conductive Flooring Adhesive is a water-based acrylic conductive adhesive for the installation of nora ED rubber floor coverings (2 mm - 3.5 mm). **Note:** Not recommended for use in areas with heavy point loading (e.g. operating rooms, cGMP).

All surfaces to be bonded shall be absorbent, dry, smooth, sound and clean. Subfloors must also be free of wax, grease, oil, polishes, old adhesive, curing compounds, high levels of moisture hydrostatic pressure and any other impurities that may affect adhesion. If mechanical preparation is required, prepare the floor using recommended preparation methods such as shot blasting or diamond grinding, to provide a roughened, clean, sound, and open porous surface.

Fold back a workable section of the flooring (normally half of the area). Clean the substrate and the back of the flooring. Apply the adhesive using a V1 1.6mm x 1.6mm x 1.6mm notch trowel. Coverage is achieved up to 5 square metres per litre.

Spread adhesive with the recommended notched trowel. Apply adhesive evenly without the formation of puddles or voids. Apply only the amount of adhesive that can be covered within the open time of the adhesive. Allow adhesive to develop some initial tack – generally 5-10 minutes at 20°C before lowering floorcovering into the WET Film of adhesive and rolled to ensure transfer has occurred.

Tack-up time will depend upon atmospheric conditions and substrate absorbency. Carefully replace the flooring back into position then slowly roll in both directions utilizing a 45kg -65kg . three-section roller. Re-roll again in both directions after 30 minutes. Repeat the process for all remaining areas. Do not allow heavy traffic for 24 hours. Do not allow the adhesive to skin over or dry out, it is important the floorcovering being bonded is installed into the Wet film of adhesive. Do not apply fresh adhesive over drying adhesive. Replace worn trowels to ensure consistent spread rate. Do not re-notch.

Note: An adhesive bond test prior to beginning the installation is recommended to determine both the appropriate open and working time of the adhesive.

Remove any fresh adhesive from the surface of the flooring with water and a clean cloth. Dried adhesive may be removed using 70% Isopropyl alcohol and a clean cloth. Do not wash or perform any maintenance of the floor for a minimum of 72 hours post installation to allow adhesive to cure. Refer to the appropriate SDS for any disposal.

RLA TWO PART RESILIENT FLOORING ADHESIVE

RLA Two-Part Resilient Flooring Adhesive is a flexible, water resistant, polyurethane adhesive for the installation of norament tiles. Once cured it forms a strong bond that displays high peel and shear strength.

Note: This adhesive is not for use with noraplan products.

All surfaces to be bonded shall be absorbent, dry, smooth, sound and clean. Subfloors must also be free of wax, grease, oil, polishes, old adhesive, curing compounds, high levels of moisture hydrostatic pressure and any other impurities that may affect adhesion. If mechanical preparation is required, prepare the floor using recommended preparation methods such as shot blasting or diamond grinding, to provide a roughened, clean, sound, and open porous surface.

RLA Two-Part Resilient Flooring Adhesive has been developed for ease of handling and mixing by the floor layer. The packs are accurately weighed by the manufacturer. Contents of Part B should be completely emptied into the Part A container and the two parts thoroughly mixed with paddle attached to slow speed electric drill. Ensure sides and base of container are thoroughly mixed in. The difference in colour between Parts A and B helps to indicate that mixing is complete.

Fold back a workable section of the flooring (normally half of the area). Clean the substrate and the back of the flooring. After Mixing, apply the adhesive using a using a V1 1.6mm x 1.6mm x 1.6mm notch trowel.

Spread the adhesive evenly without the formation of puddles or voids. Apply only the amount of adhesive that can be covered within the open time of the adhesive – generally 10 minutes at 20°C before lowering floorcovering into the WET Film of adhesive and rolled to ensure transfer has occurred. Coverage is achieved up to 5 square metres per litre depending on subfloor condition. Pot Life is approximately 20 minutes after mixing.

Note: RLA Two-Part Resilient Flooring Adhesive does not possess wet or dry tack properties. It relies upon the thickness of adhesive film to hold down the material. Should the material not tend to lay flat e.g., corners peaking, then assistance should be given in holding down with a weight until partial cure has been reached.

Slowly roll in both directions utilizing a 45kg three-section roller. Re-roll again in both directions after 60 minutes. Repeat the process for all remaining areas. Do not allow heavy traffic for 24 hours. Don't allow the adhesive to skin over or dry out, it is important the floorcovering being bonded is installed into the Wet film of adhesive. Do not apply fresh adhesive over drying adhesive. Replace worn trowels to ensure consistent spread rate. Do not re-notch.

Note: An adhesive bond test prior to beginning the installation is recommended to determine both the appropriate open and working time of the adhesive.

Immediately remove any adhesive from the surface of the flooring using 70% Isopropyl alcohol and a clean cloth. Cured PU adhesive cannot be removed without damaging the flooring. Dried adhesive on equipment may be removed using Cleaner/ Thinners (flammable).

Do not wash or perform any maintenance of the floor for a minimum of 72 hours post installation to allow adhesive to cure. Refer to the appropriate SDS for any disposal.

NORA DRYFIX 750 AND NORA DRYFIX 750 ED ADHESIVE TAPE

If used over existing flooring, nora systems, Inc. accepts no liability for any failure due to other manufacturer's flooring products or the possible breakdown of that flooring bond from the substrate for any reason. Providing both the moisture test and Adhesive Bond test have acceptable results then the installation may continue. NOTE: Do not install over any existing cushion backed resilient flooring.

The nora dryfix 750 tape must be installed prior to dry fitting the flooring materials. Carefully vacuum the installation area to remove all loose debris, and back trowel the substrate to ensure complete removal of debris.



Image 1

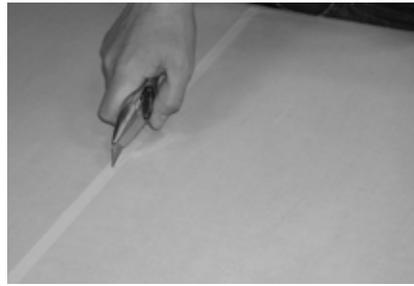


Image 2

Unroll the nora dryfix 750 tape into position (Image 1). Overlap all seams by at least 1/2 inch and lightly press into place using a steel trowel, stiff bristle broom or similar. Allow a minimum of 15 minutes before cutting seams. If the tape stretched during the installation process it will return to its original size. Double cut all seams without damaging the substrate (Image 2),

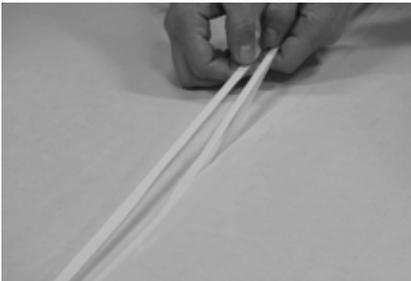


Image 3

then pull away the excess nora dryfix 750 and wax paper adding tension to the wax paper instead of folding over itself (Image 3). If you allow the wax paper to fold over it will break making removing the waste material difficult. If any trash or debris is trapped underneath the tape, remove, and replace that section of nora dryfix 750.

Alternatively, nora dryfix 750 can be trace cut on substrates where the nora dryfix 750 aggressively bonds. Overlap all seams by at least 1/2 inch and lightly press into place using a steel trowel, stiff bristle broom or similar. Next, using a straight edge, align the straight

edge against the edge of the bottom sheet of nora dryfix 750. Cut the overlapping edge off following the straight edge using a sharp straight blade utility knife.

Do not use chalk directly on the nora dryfix 750. Lay out lines using a pencil then chalk lines can be placed on the surface of the wax paper thus avoiding contaminating the nora dryfix 750.

Dry lay the flooring as detailed in the Tile and Sheet Installation sections of these installation instructions. Uplift half the area and vacuum the back of the flooring along with the surface of the wax paper. Next, remove the protective wax paper, fold, or roll the wax paper for ease of disposal, leave approximately 10cm, and fold the wax paper under the flooring to prevent debris from falling on the exposed nora dryfix 750. Replace flooring onto the exposed tape, do not stand on the flooring until you are sure of correct positioning, it is still possible to reposition it. Use a 45-70kg three section roller to remove any air bubbles and ensure a good bond.

Post Installation

Prevent all traffic for a minimum of 12 hours and rolling loads for 72 hours. If required, after 12 hours protect the flooring using plywood or Masonite, ensuring first that the flooring surface is free of all debris. Lay the panels so that the edges form a butt joint and tape the joint to prevent movement and debris entrapment underneath them.

Wet or damp cleaning may only be carried out after the adhesive has bonded i.e. after 72 hours. A post installation clean must be carried out to remove manufacturing residues. Refer to the detailed norament Maintenance Guide for these instructions.

Skirtings

At the intersection between the wall and substrate, gaps cannot be more than ~ 13mm. If a larger gap exists, fill and smooth using a suitable filler, before installation. Ensure that the wall is dry, smooth, and clean. If pre-formed skirting angles are being used, these must be installed before the skirtings.

APPLICATION

nora® skirtings should be adhered using nora profix. Fix the double-sided tape to the wall and the subfloor. Do not remove the protective paper until you are ready to stick. After cutting to fit and preparing the corners, adhere the skirting to the wall, and press or roll (hand roller) to obtain a strong bond. Do not stretch the skirting during installation or it may shrink back later. To help avoid possible shrinkage, slightly compress the skirting during installation.

INTERNAL CORNERS

These can be cut and tightly fit, scribed or completed in one piece by scoring the back at the wall corner, and then while folded over itself, remove a section of the toe directly under the score line, slightly less than a 45° angle. Alternatively, pre-formed skirting angles can be used.

EXTERNAL CORNERS

These must be well heated using a hot air heat gun, held in the creased position, then allowed to cool. nora systems, Inc. does not recommend shaving the back as this will weaken the corners. External corners may need to be cold welded for durability. Alternatively, pre-formed skirting angles can be used.

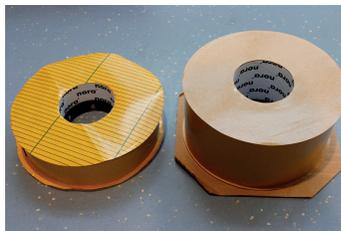
INSTALLATION

1. Prior to installation, mark the height and the base width of the skirting with a pencil or chalk line. This ensures that the skirting angles can be fitted and fixed in alignment with the skirting.



2. For the fixing of the skirting and skirting angles we recommend nora® profix 90* for the wall section and nora® profix 50* for the floor section.

Fix the double-sided tape to the wall and the subfloor. Do not remove the protective paper.



3. Before gluing the inner and outer skirting angles check their right angularity using a piece of skirting (breadth at least 10 cm). Alternatively a frame square can be used.



*or comparable product by a different manufacturer. The suitability and processing as well as the consumption of the chosen adhesive can be gathered from the build-up recommendation and the technical data sheet.

- 4.** Knock the skirting angles onto the wall and floor with a light coloured rubber mallet.



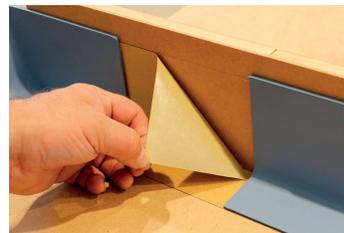
- 5.** Next the skirting is cut. Between the inner and outer skirting angle the skirting requires a minimum length of 10 cm, shorten the angles if necessary. A piece of skirting is placed overlapping the affixed skirting angle. Use another stripe of skirting (minimum length 10 cm) as a ruler.



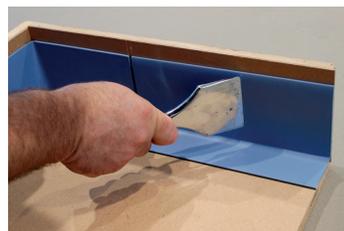
- 6.** As the joints between skirting angles and skirtings have to be sealed, the skirting is placed in such a way to the angles as to create a joint width of 2-3 mm. Mark the skirting along the edge of this "ruler" using a straight blade. After removing the "ruler" the protruding part is cut off. This will produce neat connections.



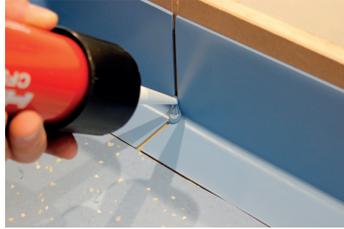
- 7.** Remove the protective paper from the double-sided tape.



- 8.** Then press the skirting and the skirting angles down and knock them into place with a light coloured rubber mallet.



9. All joints along the skirting and skirting angles must be sealed with nora® 1 component cold weld. This can be done directly after the installation and the application of nora® liquid wax (see Cold Welding).



Finished installation

Stairs

GENERAL

norament® stairtreads are designed for 80° to 90° angled straight stairs. norament stairtreads cannot be modified on site or used on winding steps or curved steps. The vertical nosing on the stair tread is not designed to be adhered to the riser. In some cases the nosing can be formed inward toward the sanded side of the tread to ensure full contact of the nosing to the riser. To determine if the angle of the stair is suitable for the norament stairtreads, use a sample piece of stair tread and confirm the nosing can be fully compressed against the riser. There should be no visible gaps between the nosing of the stair tread and the underlying riser. The radius of the stair step shall be no larger than the radius of the norament stairtread (6mm radius). If the radius is larger, fill the void using an epoxy stair filler. For wavy, damaged, or bowed steps, repairs will need to be conducted to ensure the correct angle and full adhesion.

For winding steps or curved steps do not use nora stair treads, use nora® standard flooring and suitable stair nosings.

Avoid bending or flexing norament stairtreads, especially if they have "VI" (visually impaired) strips. If they are creased during transportation, contact the Technical Department before proceeding with the installation.

NOTE: Prior to installing stairtreads with a safety strip, the safety strip must be cut back an additional 1/8 inch on both ends. This allows for expansion of the safety strip once trafficked.

With steps that are wider than the stair treads it will be necessary to join sections together. nora recommends staggered fitting (ashlar) of the cuts from one step to the next. The factory ends are cut straight and can be used for joining. The joints must be adhered using a cyanoacrylate adhesive (i.e. super glue).

CONCRETE STAIRS

All stairs must be prepared in accordance with ASTM F 710. If any step is damaged, rounded, uneven or out of level, then it must be repaired by an experienced underlayment contractor. Metal repair stair angles must be mechanically fastened. Contact the Technical Department for specific instructions.

WOODEN STAIRS

All stairs must be permanently dry, clean, smooth, level and structurally sound. All nails and screws must be countersunk and filled. Loose boards and uneven or broken areas must be repaired or replaced. The front edge of the step must be straight or match the angle of the stair tread or nosing profile.

Stair tread Installation

nora stepfix is the required adhesive for stair treads.

One stair tread for each set of steps will be cut and used for the installation of the bottom riser and the landing nosing. Do not install the combined tread and nosing portion on the landing. The balance of the stair tread (nosing portion) will be required later for the top landing.

Begin with the bottom step working upwards. Each step should be measured across in at least three locations:

- Across the nosing.
- At the intersection between the tread and riser.
- At the top of the riser.

Transfer the measurements to the stair tread and cut each stair tread using a straight blade utility knife. Undercut both sides to ensure a snug fit. If required, uneven sides should be scribed using dividers or a template. Repeat this process for each additional step.



Image 1



Image 2

Apply nora® stepfix to the entire prepared staircase, do not apply stepfix to the back of the nora stair tread (Images 1 and 2). The stepfix should be flush with the intersection between tread and riser for both applications of the tape, one on riser (fold over the nosing) and one on tread. If the stepfix overlaps on the tread, or you slightly crease it during installation, do not be concerned. Proceed and press firmly into place with your hand.

To begin installation, remove the wax paper from the bottom riser, carefully press the pre-cut riser into position, and trim the excess off flush with the top of the stair nosing.

Next, remove the first 75mm of the wax paper from the tread portion of the step and place the pre-cut stair tread into position (keep the stair tread nosing tight to the step nosing) and press firmly. A rubber mallet is helpful to fully bond the stair tread.

Next, fold the remaining section back, removing the remaining wax paper, and fully adhere the tread section. Finally, fold down the riser section of the stair tread onto the tread and remove the wax paper from the riser. Carefully roll or push the stair tread tight into the intersection between the tread and riser of the step, then correctly position the riser and press firmly. Trim the excess flush with the nosing of the step above and repeat the process until all of the steps are completed.

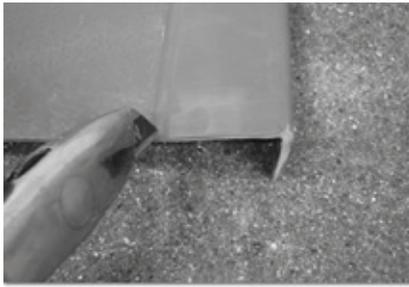


Image 3

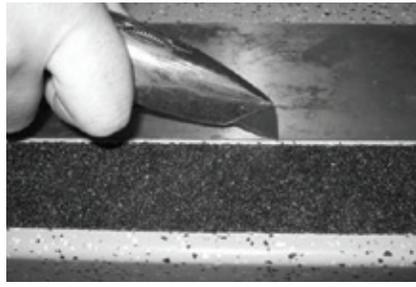


Image 4

For the top nosing, carefully cut between the nosing and tread part of the stair tread. There is a beveled area 2 inches from the front of the tread that is used to identify, cut, and remove the nosing for all landing installations. Take care to cut off the nosing (at the appropriate height) so the thickness matches that of the landing flooring (Image 3). Mark each end of the balance of the

stair tread and using a straight edge and straight blade utility knife, remove the nosing and discard the remaining tread (Image 4).

Cut the width of the top nosing to fit. It is the responsibility of the installer to use a suitable contact adhesive, to bond the nosing, in accordance with the manufacturer's instructions for this application.

Do not use the nora stepfix to bond the top nosing.

Cold Welding

Cold welding with nora 1-component joint sealing compound is the recommended solution for joint sealing of norament if required. Either the liquid wax or tape method may be used.

LIQUID WAX METHOD

After installation with wet adhesives wait a minimum of 12 hours before cold welding. If nora dryfix 750 tape or nora nTx flooring was used welding can be performed immediately. nora cold weld must be used on all corners and when required for skirtings or if specified.

The use of nitrile gloves is recommended when handling nora cold weld and nora[®] liquid wax.

To prevent bonding of the nora cold weld outside of the seam, use a clean cloth to apply a thin even layer of nora liquid wax to both sides of the seam ~ 100 mm, and allow to dry.

Groove the required seam with a mechanical joint cutter or hand-grooving tool. The depth of the groove must be a minimum of 1.5 mm. The width of the required seam with a mechanical joint cutter must be ~ 2.5 mm. For vertical seams, a small bendable straight edge can be helpful during the trimming or grooving process.

Cut the cone tip off the tube above the threads, screw on the nozzle and place the cold weld tube into a cartridge gun.

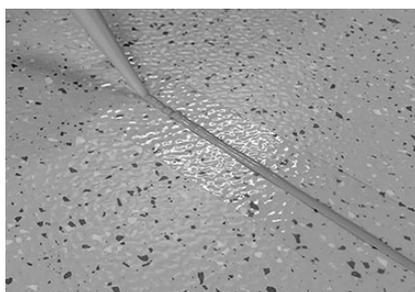


Image 1

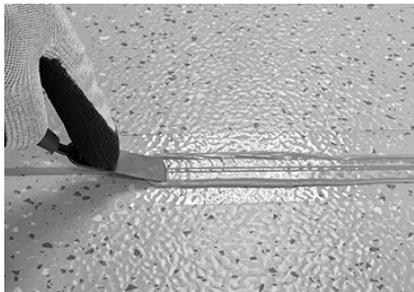


Image 2

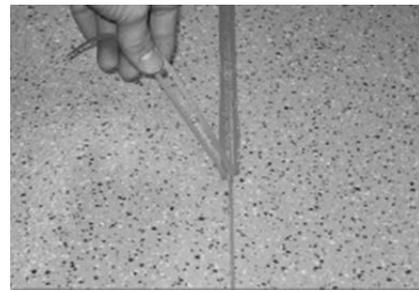


Image 3

Inject the nora cold weld into the groove without gaps until a small bulb develops above the seam about the size of heat weld rod (Image 1). At the end of the seam, release the gun to prevent leaks. Any nora cold weld tracked or spilled on the flooring must be removed immediately using 70% Isopropyl alcohol and a clean cloth, cleaning at a later stage may not be possible.

Press the nora cold weld into the seam using the flat side of the nora smoothing spatula, held nearly flat (~ 20° angle), resulting in a surface flush and on the same plane as the surface of the floor (Image 2). Excess cold weld must be pressed away on each side of the seam. It is important to develop a slight gap between the excess weld and the weld within the seam for easy removal.

For corners, use a smoothing spatula to remove the excess cold weld and smooth the surface to the required finish. Wait for ~ 10 minutes for the weld to skin over. Spray 70% Isopropyl alcohol onto the cold weld, and finish the weld by lightly smoothing with your finger to a smooth rounded acceptable finish.

Prevent any traffic on the seams until the nora cold weld has cured for ~ 8 hours.

Maintenance can be performed using a wet mop after 8 hours, machine scrubbing after 24 hours and, if required, buffing floors after 72 hours.

TAPE METHOD

After installation with wet adhesives wait a minimum of 8 hours before cold welding. If nora dryfix 750 tape or nora nTx flooring was used welding can be performed immediately. nora cold weld must be used on all corners and when required for skirtings, or if specified.

To prevent bonding of the nora cold weld outside of the required seam, use tape (Bear brand Duct Tape or similar) to completely cover the seam that requires welding. Centre the tape with the seam. Use a steel hand roller to firmly press the tape down and ensure a good bond.

Groove the seam with a mechanical joint cutter or hand-grooving tool, ensure all grooves are clean. The depth of the groove must be a minimum of 1.5 mm. The width of the groove must be ~ 2.5 mm.

For vertical seams, use a small straight edge to trim or groove the seam or skirting back, ~ 2.5 mm. Carefully apply tape onto the surface of each side of the seam, keeping the edge of the tape flush with the edge of the flooring. Press or roll (hand roller) the tape and ensure a good bond.

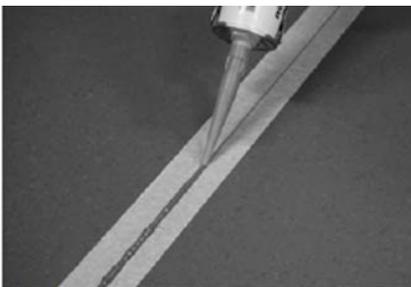


Image 1

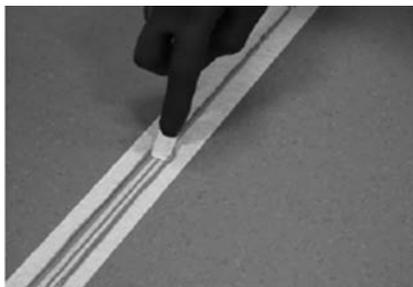


Image 2

The use of nitrile gloves is recommended when handling nora cold weld. Cut the cone tip off the tube above the threads, screw on the nozzle and place the cold weld tube into a cartridge gun. Inject the nora cold weld into the groove without gaps until a small bulb develops above the seam about size of heat weld rod (image 1). At the end of the seam, release the gun to prevent leaks. Any nora cold weld tracked or spilled on the flooring must be removed immediately using 70% Isopropyl alcohol and a clean cloth, cleaning at a later stage may not be possible.

Press the nora cold weld into the seam using the flat side of the nora smoothing spatula, held nearly flat (~ 20° angle), resulting in a surface flush and on the same plane as the surface of the floor (image 2). Excess cold weld must be pressed away on each side of the seam. It is important to develop a slight gap between the excess weld and the weld within the seam for easy removal.

For inside corners, clean the surface using 70% Isopropyl alcohol and allow to dry. Carefully apply the cold weld to the corners. Do not apply more than is needed. Use the rounded end of the nora smoothing spatula to remove the excess cold weld creating a rounded joint. Spray 70% Isopropyl alcohol and finish the weld by lightly smoothing it with your finger to an acceptable finish.

For outside corners, apply the cold weld and shape to a square corner by removing the excess cold weld. Pull the cold weld to the side using the flat end of the spatula or a suitable putty knife. Wait for ~ 10 minutes for the weld to skin over. Spray 70% Isopropyl alcohol onto the cold weld and finish the weld by lightly smoothing with your finger to a smooth rounded acceptable finish.

The tape can be peeled off immediately or after it has cured for at least 6 to 8 hours depending on thickness, temperature and ambient humidity. Prevent any traffic on the seams until the nora cold weld has cured. Maintenance can be performed using a wet mop after 8 hours, machine scrubbing after 24 hours and, if required, buffing floors after 72 hours.

Heat Welding

Cold welding with nora 1-component joint sealing compound is the recommended solution for joint sealing of norament if required. Hot weld may be used, but may not give as smooth a finish as the cold weld.

After installation with wet adhesives wait a minimum of 12 hours before heat welding. If nora dryfix 750 tape or nora nTx flooring was used, welding can be performed immediately. Heat welding should not be used vertical or when welding to nora skirtings.

Groove the seams with a mechanical joint cutter or hand-grooving tool, ensure all grooves are clean. The depth of the groove must be a minimum of 1.5 mm. The width of the groove must be ~ 3 mm.

Preheat the welding gun to 350°C – 400°C. It is recommended to practice welding on a piece of scrap flooring material first to determine the heat setting and speed, as different heat guns and cable length will affect the temperature.

NOTE: If the weld rod comes out during trimming, then either you welded too fast or the gun is not hot enough. The heat weld must melt at a lower temperature. Turning up the heat too high can burn the edges of the grooved seam. The best method is to run the heat weld gun slower and at a lower temperature.



Image 1

Cut a length of nora heat weld rod the length of the seam. Proceed to weld the seam starting at the wall and apply slight pressure to the gun nozzle (nose) to force the melting rod into the groove (Image 1). The heat weld rod must have a flattened top and small bead on both sides.

Make the first cut of the weld rod warm (Image 2). Use a Mozart trimming knife with the 0.7 mm spacer claw to remove most of the weld. Allow the weld rod to cool to room temperature.



Image 2

Next, use the Mozart trimming knife (without the spacer claw) and finish trimming the remainder of the weld. The finished weld should be smooth and on the same plane as the floor covering.

If any excess weld rod is left after the final trim, it can be removed using the melting technique. To perform this, heat up a non-sharpened metal putty knife, gently push the putty knife down the seam weld. The heat gun can be held on the top of the putty knife to keep the knife warm. Excess weld material will collect on the knife.

Contact Information

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