

SUBFLOOR and INSTALLATION REQUIREMENTS

Approved Subfloors:

A. **CONCRETE:** Concrete substrates must be clean and dry, smooth, and structurally sound. They must be free of dust, dirt, paint, varnish, oil, grease, solvent, wax, existing adhesives and other extraneous material including curing and parting compounds, sealers and surface hardeners that may interfere with the adhesive bond. Do not use on chemically cleaned substrates or those treated with silicate compounds. Even after old glued-down carpet has been removed and the subfloor has been scraped, it should not be assumed that the concrete is porous. Often, the old adhesive has sealed the floor. Be aware that porous subfloors may require a different trowel size for adhesive application than non-porous subfloors. If oil, grease or other contaminants have deeply penetrated the concrete and cannot be thoroughly removed, True North Commercial LVT cannot be installed. If latex liquid has been used to seal off old cutback adhesives, the concrete should be considered non-porous. All concrete must have compression strength of 3,500 psi or greater.

B. **LIGHTWEIGHT CONCRETE:** The minimum density of the concrete should be greater than 90 lbs. per cubic foot. The minimum compressive strength should be 2,500 psi or greater. Gypsum-based concretes are not recommended. If installing over gypsum or other forms of lightweight underlayment, apply an acrylic based primer-sealer coat before troweling or rolling on the adhesive as specified by the underlayment manufacturer.

C. **WOOD SUBFLOORS:** Should be standard double-layer construction, with a finished thickness of at least 1". Crawl spaces should be insulated and protected by a vapor barrier. Do not install vinyl flooring over plywood that is directly over a concrete slab. All wood subfloors must meet national and local building code guidelines.

1) **PLYWOOD:** Use only American Plywood Association (APA) or Canadian Plywood Association (CANPLY) underlayment grade plywood, minimum 1/4" thickness. Allow expansion spacing between plywood butt joints of 1/32"-1/16". When installing underlayment, stagger cross-joints 4' on an 8' panel (minimum 16"), lightly butt the panels, and set fasteners flush or slightly below the surface level of the underlayment. Fill underlayment seams, nail holes and any indentations with an approved Portland Cement-type floor patch, allow recommended drying time, and sand the patch smooth. All dust must be COMPLETELY removed to ensure a strong adhesive bond. Vacuum or sweep thoroughly, then apply adhesive. Manufacturer-certified poplar, birch and spruce plywood underlayment with a fully sanded face and exterior glue can also be used.

D. **RADIANT HEAT:** Radiant heat components must be cast at least 1/2" below the concrete slab. The heating system must operate for at least two weeks prior to installation. Radiant heat floors should be turned off 3 days prior to installation and remain off for at least 6 days after installation to allow the adhesive to fully cure. After 6 days, turn the radiant heating system back on beginning at 65°F, and gradually increase the temperature every 24 hours in 5° increments to a maximum operating temperature of 85°F. Consult the radiant heat system manufacturer for further information.

E. **QUARRY TILE, TERRAZZO and CERAMIC TILE:** Skim coat grout lines with embossing floor leveler. Fill in dips and voids with cementitious leveling compounds to level the subfloor.

NON-APPROVED SUBFLOORS

Non-approved subfloors include, but are not limited to: Oriented strand board (OSB), particleboard, hardboard, treated plywood, strip wood floors, chipboard, wafer board, Masonite, knotty plywood, glass mesh tile boards, cementitious tile backer boards, fire-retardant or preservative-treated plywood, asphalt tile, rubber tile, vinyl flooring and but not limited to self-stick tile.

NOTE: Any appearance or performance-related issues associated with the underlayment are the responsibility of the installer and/or underlayment manufacturer.

SUBFLOOR PREPARATION

CONCRETE SLABS: *NOTE: All concrete, whether new or old, must be tested for moisture using either the calcium chloride test or a test for relative humidity. Concrete should also be tested for pH, porosity and bond prior to installing True North Commercial LVT.* The installer is responsible for performing moisture tests. Moisture will retard and prevent adhesive from setting, resulting in installation failure.

See adhesive pail labels for details. New concrete should cure under well-ventilated conditions for at least 90 days and must be tested for moisture and pH before installing True North Commercial LVT. DO NOT install if excessive moisture, hydrostatic pressure, or alkaline conditions are evident. Concrete substrates must be clean and dry, smooth, and structurally sound. They must be free of dust, dirt, paint, varnish, oil, grease, solvent, wax, existing adhesives and other extraneous material including curing and parting compounds, sealers and surface hardeners that may interfere with the adhesive bond. Remove any curing agents from

concrete surfaces. Level any high spots and fill in all cracks, holes and minor depressions with a Portland Cement-based filler, then sand smooth.

PATCHING & LEVELING

Use only Portland-Cement based patching and leveling compounds. Allow at least 24 hours for underlayment drying before installing True North Commercial LVT. Self-leveling underlayment's may have very high moisture content requiring longer curing times, up to 10 days. Check with a moisture meter before starting installation. *NOTE: Adding latex to levelers will normally make the floor NON-POROUS. Test for porosity and follow non-porous adhesive recommendations if necessary.* Follow the manufacturer's instructions, and do not over-water underlayment's. The installer is responsible for observing cure times, moisture content, adhesive bonding and the structural integrity of any leveling or patch compound used.

SEALERS

True North Commercial LVT. does not endorse the use of any concrete or floor sealers against moisture. If moisture is present, DO NOT INSTALL True North Commercial LVT.

ACCLIMATE THE PRODUCT

Correct acclimation prevents True North Luxury Vinyl Flooring from expanding and contracting excessively after installation.

- Move True North Luxury Vinyl Flooring to the job site and allow to acclimate at least 24 to 48 hours prior to installation.
- Spread *unopened* cartons no more than 3 cartons high and at least 4 inches apart. Cartons should be stacked away from heating and cooling ducts and direct sunlight.
- Maintain a constant room temperature between 65°F and 85°F before, during and after installation.
- Maintain ambient relative humidity between 35% and 85% at all times.

PLANK INSTALLATION

1. Measure to find the centre of the room and strike a chalk line. Using a carpenter's square, strike another chalk line at a 90-degree angle to the first chalk line to divide the room into four sections.
2. **Mix the adhesive following the manufacturer's instructions. Apply the adhesive to a 5-foot-by- 5-foot section of the floor along one of the chalk lines.** Lay the first pieces of vinyl plank into the adhesive along one of the chalk lines. **Place planks into adhesive while the adhesive is still "tacky/wet" paying close attention that the corners/edges are flat from plank to plank (Figure: 1).** Materials should be properly adhered with a 60% - 80% transfer of adhesive to the back of each plank (Figure: 2). Butt each piece of plank against the adjoining planks. Lay down the next row of planks, staggering the joints. **When you have covered the area where you have laid down adhesive, clean up any excess adhesive and roll the flooring with a 100-pound 3-section roller.**
3. **Continue laying and rolling the vinyl floor planks until you reach the wall leaving a 3mm gap to allow for expansion, roll material as needed to make flat.** Trim the final planks to fit with a utility knife and straightedge, and install them and roll. Go back and fill in the ends of the rows with planks cut to fit. Lay the plank flooring on the other side of the room, roll as each section is installed.
4. Make kraft paper templates to fit around irregularities in the room. Cut the vinyl plank flooring to accommodate the irregularity using a utility knife. If you are installing the flooring in a bathroom, remove the toilet first and reinstall it after the flooring is in.
5. Forbid people from walking on the newly-installed flooring for at least 24 hours.
6. Reinstall the baseboards.



(Figure: 1)



(Figure: 2)