

## PRODUCT DESCRIPTION

HDT<sup>®</sup>: A Heavy Duty Vinyl Tile, The VCT Alternative.

An advanced tile floor designed for all environments - Education, Retail, Healthcare, Corporate and Hospitality (including heavy commercial) - installed with standard LVT adhesive (see below for Empire Today<sup>®</sup> Adhesive recommendations). HDT<sup>®</sup> is built to last, with unique structure and designs, yielding unparalleled dimensional stability, diverse visuals, and above-average sound absorption.

## PRIOR TO INSTALLATION

### Inspect the Material

- Before installing HDT<sup>®</sup>, check all the material for correct color, design, size and that you have the correct quantity to finish the job.
- If there are visible defects, alert Empire Today<sup>®</sup> immediately and stop the installation.
- Complaints about material with clearly identifiable defects will not be accepted once the flooring has been laid.

### Job Site Conditions and Material Handling

The HDT<sup>®</sup> product is specifically designed for heavy abuse to include static and dynamic loads. A multi-layer, 2000 PSI product makes it very durable on the floor, but sensitive to material handling.

- The tile cartons should be removed from pallets, stored flat, and separated from one another for a minimum of 24 hours prior to installation.
- It should be kept away from direct sunlight, heaters, or air vents, as part of the acclimation process.
- Be very careful not to drop tiles or cartons on its corners. If the material has damage to the corners, it will fracture and cause premature failure. Alert Empire Today<sup>®</sup> for any material damaged in handling, do not install and have it replaced.
- Do not use materials that have been stacked on an uneven surface, exposed to excessive moisture, tiles or boxes that have been dropped on their corners, or any other signs of damage.
- In the area in which the material will be installed, maintain all flooring material and adhesives between 65°F (19°C) and 85°F (30°C) for at least 48 hours before installation, during installation, and after installation to ensure proper product and adhesive functionality.
- At installation, the temperature of the subfloor should not be below 50°F (10°C) or over 80°F (26°C).
- The relative ambient humidity inside the room should be between 35% and 65%.
- Heat from the building's permanent heating system (NOT portable heaters) should be maintained in areas to receive flooring.
- The installation should not begin until the work of all other trades has been completed.

## Sub-Floors

Proper subfloor preparation is critical to the success of your installation and how the floor will perform. Every floor covering installation is only as good as the sub-floor over which it is installed. HDT<sup>®</sup> is a very hard, flat material that will show subfloor irregularities if not properly prepared before installation.

## Concrete:

- Existing glue and debris removal including skim coat with a Portland based, feather finish application is important to a successful outcome.
- Take care to ensure that your Concrete substrate is properly prepared to receive the new flooring. The substrate must be smooth, flat, and free from paint, dirt, drywall mud or dust, residual adhesives, nails or other fastening devices, improper underlayment, alkali deposits, mold, or mildew. Extra work here will prevent bumps, ledging and other visual imperfections that, despite not being product-related, may affect your customer's acceptance of your work.
- Concrete Vapor Emission and Hydrostatic Pressure Considerations: Older building, or buildings without "under slab" aggregate and plastic sheeting (5 mil vapor barrier) will require special attention regarding concrete cold joints, concrete trench repairs and concrete slabs with large cracks exceeding 1 /4 inch.
- Cold joints and cracks over 1 /4 inch shall be cut and filled with UZIN #KRS 18 with light sand broadcast.
- Cold Joint and large crack areas are to be "crack chase" with a V notch grinder.
- Moisture content (tested with a pin-type meter) should not exceed 13%.
- Suspended wood floors are acceptable if there is at least 18" of well-ventilated space below the floor-and if over dirt, the surface of the ground is covered with a minimum 5 mil vapor barrier.
- Empire Today<sup>®</sup> does not recommend installation on wood fastened directly to concrete or on wood set on sleepers.

## Wood:

Wood subfloors may require a bit more preparation.

- Existing glue and debris removal.
- Moisture test should be performed using a pin-type moisture meter. The moisture content should be 13% or less.
- Wood subfloors must be structurally sound and in compliance with local building codes.
- Wood subfloors should be suspended with a minimum of 18 inches of well-ventilated air space below.
- Crawl spaces must have a vapor barrier covering the ground.
- Wood subfloors directly fastened to concrete, or sleeper construction are not recommended.

## **Terrazzo and Quarry Tile:**

Existing floor shall be cleaned of any residue, waxes, and or debris. It's suggested that solid floor cleaner is used in conjunction with an orbital, low speed, burnisher and red pad. Once the floor is clean, a vinegar rinse solution is applied to neutralize any soap residue that may be present. Approximately 2 ounces of vinegar per gallon.

- Make sure the floor is dry and the substrate is sound and firm as you move forward.
- Preferred products for substrate preparation: UZIN
- UZIN PE 280 primer
- UZIN NC 888 patching compound to be applied to any grout / joint seams and existing depressions (quarry tile, coal joints, recessed, grout areas)
- All areas of applied UZIN NC 888 to be primed (after NC 888 has thoroughly dried) with UZIN PE 360 primer. This primer must only be applied to exposed NC 888 patch. Not over the existing PE 280 primer.
- Self-leveling these substrates is recommended, even if this is with a minimum of 1/8". For this purpose, NC 170 SLC is recommended. Patching versus leveling prior to the installation of HDT<sup>®</sup> increases the risk of having to patch, sand off, reapply more patch, sand off etc. By self-leveling all in one application you will save significant time.
- For the installation of your HDT<sup>®</sup> products I recommend UZIN KE 2000 S adhesive. Areas of flooring that will be exposed to high heat (floor to ceiling glass - South facing) UZIN KE 66 wet set adhesive is recommended.

Because of the intensity of the preparation work, it is suggested that you use the Uzin adhesive due to application continuity. These products have been tested together. Therefore, introducing a different type of adhesive may create exposure regarding potential failures or incompatibility issues.

## **Underlayment**

HDT<sup>®</sup> is safe to install where moisture conditions approach 99% RH, utilizing CPI Alliance™ Adhesive. Where moisture levels exceed 99% RH, see below for CPI Victory™ Adhesive recommendation.

## **INSTALLATION**

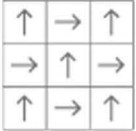
HDT<sup>®</sup> is installed just like other tile floors. Snap center lines N -> Sand E ->Wand work from the center into each quadrant, laying the tiles tight to one another. Make sure your center lines intersect at 90° angles.

## Installation Methods

Customer communication regarding layout and installation method is important to the customer's expectation and satisfaction with the appearance of the finished installation.

### Quarter Turn:

(Material arrows alternating.)

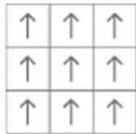


Quarter Turn

HDT<sup>®</sup> installed by Quarter Turn will allow mergeable dye lots and can leave a slight checkerboard appearance due to alternating finish direction and light refraction. Consider light refraction and product color when choosing a Quarter Turn installation. Lateral light sources and product color selection will influence the appearance of quarter turn checkerboard pattern.

### Monolithic:

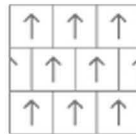
(Material arrows running in the same direction.)



Monolithic

### Brick:

(Material arrows running in the same direction.)



Brick

## Adhesives

Empire Today<sup>®</sup> recommends Alliance<sup>™</sup> Adhesive for those installations where moisture does not exceed 99% RH. In those cases where moisture levels exceed 99% RH, use CPI Victory<sup>™</sup>, which has no moisture limitations.

**ALLIANCE<sup>™</sup>:** follow all manufacturer instructions.

On porous substrates, expect coverage of 150-180 square feet per gallon, using a 1/16"x1/16"x1/16" SQUARE NOTCH trowel.

On non-porous substrates, expect coverage of 220 - 260 square feet per gallon, using a 1/16"x1/32"x1/32" U NOTCH trowel.

**VICTORY<sup>™</sup>:** follow all manufacturer instructions.

Expect coverage of 220 - 260 square feet per gallon, using a 1/16" x 1/32" x 1/32" U NOTCH trowel.

Always roll the floor with a 3-section, 100-pound roller to fully engage the tiles with the adhesive.

When you're done, inspect your work!

Make sure all your seams are tight and there is no adhesive residue on the surface of your new floor.

## For Cleanup

While product is still wet: use a damp cloth and water to remove.

While product is still soft: use Taylor Touchdown #9 or another approved adhesive remover/stripper, denatured alcohol, or mineral spirits. Always check compatibility on a piece of scrap flooring.

## POST INSTALLATION

- If you utilize CPI Alliance™ adhesive, the floor is available immediately for light foot traffic, and for heavy traffic in 24 hours. Wait 48 hours for heavy rolling loads.
- If you utilize CPI Victory™ adhesive, the floor is available after 3 hours for light foot traffic, and for heavy traffic in 4 hours. Wait 8 hours for heavy rolling loads.
- If you use adhesives other than the recommended adhesives, wait 24 hours for light foot traffic and 48 hours for moving furniture or appliances onto the finished floor.
- Never drag furniture or heavy items on the new floor. Use appropriate moving devices that protect the new floor.
- Protect the floor with walk-off mats (NO RUBBER BACKED mats).
- Whenever possible, use furniture glides and protectors.
- Make sure all rolling chairs have fully functional casters that are designed specifically for resilient flooring.
- HDT® is suitable for installation on floors with underfloor heating systems. However, it is crucial that the underfloor heating system be turned off for 48 hours BEFORE and 48 hours AFTER installation. Once the waiting time is complete, the underfloor heat can be increased by no more than 5° per day until it reaches the maximum of 80°.

## Post Installation Floor Cleanup Requirement Prior to Occupancy by the Owner

- The contractor is responsible for cleaning the existing floor utilizing the Ecolab Facilipro 36 floor cleaning solution.
- The contractor will apply the cleaning agent using a 2-ounce per gallon dilution schedule.
- The floor cleaning agent shall be applied using microfiber mops to all areas that have received new floor covering.
- This action must take place post-installation and prior to owner occupancy.

## ADDITIONAL DESIGN CONSIDERATIONS

Accent/Feature Tiles: 7717 Chaffee, 7719 Fletcher, 7720 Fortress, 7722 Mitchell, 7724 Lightning, 7727 Hellcat, 7730 Dauntless, 7733 Hornet, and 7736 Intrepid.

The above colors are considered to be accent tiles and should never be installed in full-field because it creates difficulty in visible cleanliness and maintenance.

\* For Maintenance Instructions, refer to the HDT® Maintenance Guidelines