

## Product

VaraCore from Six Degrees is a premium click floating Rigid Core/Luxury Vinyl Plank (LVP) product featuring natural wood looks which provide appealing design elements in any setting. Using the I4F locking mechanism, VaraCore can be installed directly over a wide variety of substrates without the need for adhesive.

The product is constructed with a durable wear layer and topped with a UV-cured ceramic-reinforced

polyurethane finish, which provides maximum durability while ensuring long lasting beauty without the use of an on-site finish.

Material is 100% recyclable and manufactured from premium raw materials, making it a beautiful & sustainable flooring option for any space.

### Ideal Installation Locations

**Retail:** boutiques

**Commercial:** small offices, churches

**Residential:** all types of residential applications including single family homes, townhomes, independent assisted living apartments

**Multi-Level Housing:** Apartment complexes, student housing, short-term residences

## Features

- **Easy To Maintain**
- **Ceramic-Reinforced, UV-Cured Urethane Finish**
- **More Durable than WPC**
- **Excellent Indentation Resistance**
- **Excellent Chemical Resistance**
- **Excellent Slip Resistance**
- **Supreme Moisture Resistance**
- **Qualifies for LEED® Credits**
- **FloorScore® Certified**

## Technical Data

Nominal Plank Dimensions:	7 1/4" x 47 3/4" x 4mm
Finish:	Embossed
Wear Layer Thickness:	12 mil (0.012")
Quantity Per Carton:	10 Planks
ASTM F3261 – Rigid Core Flooring:	Class I, Type B, Backing Class A
ASTM E648 - Critical Radiant Flux:	Class I, >.45 W/cm2
ASTM E662 - Smoke Density:	Passes, <450
ASTM D2047 - Slip Resistance:	> 0.60
ASTM F970 - Static Load Limit:	Passes, 250 PSI
ASTM F970 (Modified) - Max Weight:	2000 PSI
ASTM F925 – Chemical Resistance:	Excellent (chart available)
ASTM F1514 – Heat Stability:	Passes
ASTM F1515 – Light Stability:	Passes
ASTM F1914 – Residual Indentation:	Passes
ASTM F2199 – Dimensional Stability:	Passes
ASTM E90 – Sound Transmission Class:	STC 57
ASTM E492 – Impact Insulation Class:	IIC 46
ASTM E492 – IIC with CSU-400:	IIC 51
ASTM E492 – IIC with FSU-410:	IIC 51
ASTM E2179 – Delta Impact Insulation:	ΔIIC 12
Acclimation Time:	48 Hours
Storage & Acclimation Temperature:	65° - 85° F

## Additional Information

### Approved Adhesives If Needed for High Shear Stress Areas

- Excelsior SP-500 Acrylic Aerosol
- Excelsior AP-520 Acrylic Roll-On

### Availability, Cost & Samples

Six Degrees Flooring products are sold through appointed sales representatives. To locate the nearest representative, contact Six Degrees Customer Service at (844)-432-5885 or send an e-mail to support@sixdegreesflooring.com

### Technical Documents & Support

Additional product resources and technical documents are available online at [sixdegreesflooring.com](http://sixdegreesflooring.com).

For additional technical support, send an email to [solutions@rhctechanical.com](mailto:solutions@rhctechanical.com).

### 1. PRE-INSTALLATION CHECKLIST

- Consult all associated product literature concerning adhesive installation, maintenance and warranty prior to installation of flooring.
- Allow all trades to complete work prior to installation.
- Deliver all materials to the installation location in its original packaging with labels intact.
- Do not stack pallets to avoid damage.
- Remove any plastic and strapping from product after delivery.
- Remove material from packaging and stack evenly on a smooth, dry surface. Do not stack higher than 18".
- Inspect all material for proper type, color and matching lot numbers or production codes if appropriate.
- Ensure installation area and material storage temperatures are between 65° F (19° C) and 85° F (30° C) for at least 48 hours before, during and after installation.
- Ensure HVAC system is operational and fully functioning at normal operating conditions.
- Protect installation area from extreme temperature changes, such as heat and freezing, as well as direct sunlight for at least 48 hours before, during and after installation.
- Ensure all substrate preparation and moisture testing requirements have been read and understood by all interested parties.
- Test substrate for porosity in order to determine the installation method necessary.
- Ensure all vents, walls, moldings and/or doorways are protected with tape or plastic prior to installation.

Do not proceed with installation until all conditions have been met.

### 2. PRODUCT LIMITATIONS

Do not install materials over LVT, cushioned vinyl, hardwood flooring, cork, rubber, or asphaltic materials. Do not install flooring materials in outdoor areas

or in and near commercial kitchens. Do not install in areas that may be subjected to sharp, pointed objects, such as stiletto heels, cleats or spikes. Do not allow product to be directly exposed to extreme heat sources, such as radiators, ovens or other high-heat equipment. May be susceptible to staining from rubber tires, casters or rubber-backed walk-off mats, as well as harsh disinfectants, cleaning agents, dyes or other harsh chemicals – ensure all chemicals and materials that may come in contact with flooring surface will not stain, mar or otherwise damage the flooring material prior to use.

### 3. SUBSTRATE PREPARATION

All substrates must be prepared according to ASTM F710, as well as applicable ACI and RFCI guidelines. Substrates must be clean, smooth, permanently dry, flat, and structurally sound. Substrates must be free of visible water or moisture, dust, sealers, paint, sweeping compounds, curing compounds, residual adhesives and adhesive removers, concrete hardeners or densifiers, solvents, wax, oil, grease, asphalt, visible alkaline salts or excessive efflorescence, mold, mildew and any other extraneous coating, film, material or foreign matter.

All substrates must have any and all existing adhesives, materials, contaminants or bond-breakers mechanically removed via scraping, sanding, grinding or buffing with a 25 grit Diamabrush Prep Plus tool prior to adhesive installation. In extreme situations, shotblasting may be required. Mechanical preparation must expose at least 90% of the original substrate. Following cleaning and removal, all substrates must be vacuumed with a flat vacuum attachment or damp mopped with clean, potable water to remove all surface dust. Sweeping without vacuuming or damp mopping will not be acceptable.

All porous substrates must be tested per ASTM F3191 to confirm porosity. Use a pipette or equivalent to conduct three tests by placing a .05 mL (1/4" wide) droplet of clean, potable water onto the surface. If the substrate absorbs water within 60 seconds, the substrate is considered porous. Conduct 3 tests for the first 3000 sq. ft. and one for each additional 2000 sq. ft., at least one per room. All other substrates that do not meet this requirement are considered

non-porous. Ensure that all non-porous substrates are not contaminated with any aforementioned contaminants.

It is recommended that all substrates have a floor flatness of FF32 and/or a flatness tolerance of 1/8" in 6' or 3/16" in 10'. Substrates that do not meet this requirement should have a compatible cementitious patch (such as the Excelsior CP-300) or self-leveling underlayment (such as the Excelsior SU-310) installed to flatten the installation area.

Do not use solvent/citrus based adhesive removers prior to installation. Follow The Resilient Floor Covering Institute's (RFCI) "Recommended Work Practice for Removal of Existing Floor Covering and Adhesive", and all applicable local, state, federal and industry regulations and guidelines. When removing asbestos and asbestos containing materials, follow all applicable OSHA standards.

### CONCRETE SUBSTRATES

All concrete must have a minimum compressive strength of 3500 PSI and be prepared in accordance with ASTM F710. When flooring is being installed directly over concrete, concrete surfaces that have an ICRI Concrete Surface Profile (CSP) over 4 should be treated with a self-leveling underlayment or a patch to prevent imperfections from telegraphing through flooring materials. On or below grade concrete must have a permanent, effective moisture vapor retarder installed below the slab.

New or existing concrete substrates on all grade levels must be tested in accordance with ASTM F2170, using in situ Probes (such as Wagner Rapid RH), to quantitatively determine the amount of relative humidity at least one week prior to the installation.

#### Material RH Limits

Loose-Lay Installation: 95% RH

#### Material MVER Limits

Loose-Lay Installation: 10 lbs.

In addition to ASTM F2170 Relative Humidity Testing, existing concrete that has previously had floor covering installed on all grade levels must be tested in accordance with ASTM F1869,

using Calcium Chloride test kits, to quantitatively determine the Moisture Vapor Emissions Rate (MVER) of the concrete.

If ASTM F2170 or ASTM F1869 test results exceed the above limits, a moisture mitigation product, such as the Excelsior MM-100 Moisture Mitigation must be installed prior to proceeding with installation. Do not install flooring until moisture testing has been conducted per the appropriate standard and/or moisture mitigation has been installed per product technical data and/or installation instructions and is dry to the touch. Do not install flooring in below grade areas when hydrostatic pressure is visible or suspected.

### RESINOUS SUBSTRATES

When installing directly over a resinous products, such as the Excelsior MM-100 or an epoxy coating, ensure that coating is dry to the touch and has cured for the prescribed length of time. Substrate must be clean, dry, sound and free of contaminants. Ensure to follow installation procedures non-porous substrates.

### GYPSUM BASED SUBSTRATES

Gypsum-based substrates must have a minimum compressive strength of 3500 PSI. Gypsum substrates that do not meet this requirement may have one coat of the Excelsior MM-100 installed to improve the strength of the substrate. Substrate must be structurally sound and firmly bonded to subfloor. Any cracked or fractured areas must be removed and repaired with a compatible patch or repair product. Follow instructions for installation over a gypsum substrate. New or existing gypsum substrates may require a sealant or primer. Follow all manufacturer's recommendations regarding preparation for resilient flooring installation.

### WOOD SUBSTRATES

Wood substrates must be prepared in accordance with ASTM F1482. Wood subfloors should be of double layer construction with a minimum thickness of 1". Crawl spaces beneath wood subfloors shall be in compliance with local building ventilation codes and have at least 18" of cross-ventilated space between the ground and the joists. Wood joists should be spaced on not more than 16" centers.

Prior to installation, moisture retardant sheeting with a maximum rating of 1.0 perm must be installed beneath the wood subfloor, overlapped at least 8". For standard installations, use Underlayment Grade plywood with a minimum thickness of 1/4" thick and a fully sanded surface. When floors may be subjected to moisture, use an APA approved exterior grade plywood.

Other wood subfloor materials, such as OSB, lauan, particleboard, chipboard or cementitious tile backer boards, are not acceptable subfloors. Avoid preservative-treated and fire-retardant plywood, as some may be manufactured with resins or adhesives that may cause discoloration or staining of the flooring.

Wood subfloor deflection, movement, or instability will cause the flooring installations to release, buckle or become distorted. As such, do not use plastic or resin filler to patch cracks. Do not use cement or rosin coated nails and staples or solvent-based construction adhesives to adhere the plywood. Do not install on a sleeper system (wood subfloor system over concrete) or directly over Sturd-I-Floor panels.

### METAL SUBSTRATES

Metal substrates must be thoroughly sanded/ground and cleaned of any residue, oil, rust and/or oxidation. Substrate must be smooth, flat and sound prior to installation. When installing in areas that may be subject to topical water or moisture and/or high humidity, an anti-corrosive coating must be applied to protect metal substrate. Contact a local paint or coating supplier for coating recommendations. Install flooring material within 12 hours after sanding/grinding to prevent re-oxidation. Any deflection in the metal floor can cause a hollow sound between the flooring and the metal substrate. Ensure to follow installation procedures for non-porous substrates.

### EXISTING FLOORING SUBSTRATES

The suitability of existing flooring as a substrate depends on the number of existing layers and how well the existing flooring is bonded. Installation of this product will not cause the existing flooring to release, but releasing of the existing flooring can cause unsatisfied results in the new flooring.

### RADIANT HEATING SUBSTRATES

When installing flooring over a substrate that contains a radiant heating system, ensure the radiant heat is turned off 48 hours prior to installation and remains off during the entire installation. 48 hours after installation, the radiant heat may be gradually increased over the course of 24 hours, until normal operating temperature is reached. Ensure the temperature of the radiant heating system does not exceed 85° F (29.5° C) and avoid making abrupt changes in radiant heating temperature.

### 4. CRACKS, JOINTS & VOIDS

Ensure All cracks, joints and voids, as well as the areas surrounding them, must be clean and free of dust, dirt, debris and contaminants. All minor cracks and voids 3/64" wide or less may be repaired with a suitable cementitious patch.

Due to the dynamic nature of concrete slabs, manufacturer cannot warranty installations to cover expansion joints, cracks or other voids (such as control cuts, saw joints and moving cracks or voids) wider than 3/64". Do not install flooring directly over any expansion joints or cracks wider than 3/64".

All expansion joints should have a suitable expansion joint covering system installed to allow expansion joint to freely move. To treat expansions joints where an expansion joint covering system can't be installed or to treat through cracks (depth at least 75% of the thickness of the concrete), chase joint or crack with a suitable saw or grinder and open to a minimum width of 1/4". Be sure to clean all dust, dirt and debris from crack. Joints and cracks should then be sealed with a suitable, elastomeric caulk (such as Ardex Ardiseal Rapid Plus, Mapei P1 SL or equivalent) designed for use in expansion joints. Install a closed-cell backer rod at prescribed depth and follow caulk manufacturer's instructions for installation. Ensure surface is troweled flush with surface of concrete.

To treat other cracks and voids (such as control cuts, saw-cut joints and surface cracks) over 3/64", chase joint or void with a suitable saw or grinder and clean all dust, dirt and debris from crack. Fill entire crack with a rigid crack filler (such as Ardex Ardifix, CMP CM10 or equivalent) designed for use in control or saw-cut



cuts. Follow material manufacturer's instructions for installation. Ensure surface is troweled flush with surface of concrete.

Consult a structural engineer prior to treating any crack or joint, especially those that may affect structural integrity (such as expansion joints). Review all manufacturer installation instructions and/or consult manufacturer technical staff for all crack or joint filling products prior to treating joints and cracks.

### 5. PRODUCT INSTALLATION

Ensure substrate is suitably prepared prior to installation, as manufacturer is not responsible for substrates that have not been properly prepared and tested for moisture. Prior to installation, confirm material installation pattern and direction per design specifications or work order. Inspect all planks before installing or during installation to verify that there are no visible defects, damages or excessive shading variations. Blend materials from several cartons to ensure consistent appearance and color or shade variation. Some flooring products, colors and textures have latent and acceptable color and shade variations. If there are concerns regarding shade or color variation, do not install material and consult a sales representative and manufacturer's technical staff.

If using a sound deadening underlayment it should be no thicker than 2.5mm. Substrate flatness is critical when installing Loose Lay click flooring. Any unevenness in the substrate could cause flooring to move or planks to slide.

Ensure substrate is clean, dry, flat, and sound prior to installation. Determine direction of layout and square the room using the 3-4-5 squaring rule or similar method to ensure acceptable installation. Establish initial installation starting point. Once you have squared the room determine center of room and mark with a chalk line or equivalent. This line can be used as a reference to ensure planks are square to the room as installation progresses. Dry-lay several planks to establish the best layout for the installation area and facility and ensure equal plank sizes around the perimeter if possible. Allow a 1/8" gap around the entire perimeter of the room to allow for expansion, ensuring gap is no wider than the trim, wall base or molding to be

installed.

Cut borders and other specialty pieces to fit snugly against or around walls, thresholds, transition strips, fixtures and other protrusions or accessories. When cutting square ends the use of a laminate cutter, chop saw, or the scribe and snap method can be used. Use a jigsaw when curved or detailed cuts are required. Avoid forcing material tightly against vertical surfaces, as material may buckle. When necessary, use a jamb saw or multi-tool to undercut door jams or moldings to allow material to slide underneath for a seamless installation. Ensure all end seams are a minimum of 6" apart and that flooring seams do not directly align with seams in the substrate.

Starting at one corner of the installation area, install the first plank with shorter tongue towards the corner and back



starting wall and longer tongue facing towards open room and the opposite corner.



Install the next plank adjacent to the first plank, overlap the interlocking tab ensuring edges are aligned. Make sure seams are tight without any size (large or small) gaps. If necessary, use a straight edge, level or equivalent to ensure back edges are aligned. Use a hand roller or non-marking rubber mallet to firmly secure the end seams. End seams should be level and flush when secured and not overly compressed.

Use a new plank to start a new row, staggering the end seams in a random



or pre-determined pattern. Start by holding the plank at a slight angle while interlocking the length of the planks together. Once completely engaged lower the plank flat ensuring there are no gaps.

After installing the first row of planks,



align and interlock length of next by lightly butting corner of first plank. Do not over compress to first plank. Drop into place and hand roll all seams for a tight and level fit. Proceed with rest of installation. End cuts from one row at finishing wall can be used to start next

row on starting wall.

Once the installation has reached the center line, shift or adjust entire installed flooring section if needed. Proceed with installation of the remainder of the room. Once the adjacent wall is reached cut perimeter planks to fit remaining gap. When cutting planks lengthwise the use of a table saw would be recommended. When installing plank flooring in rooms with more complicated layouts, greater attention to detail will need to be observed to eliminate smaller fill pieces at ending walls.

When installing material in heavy use areas, doorways or where flooring installation changes direction, apply adhesive along doorway or along seam and create an "X" pattern with adhesive to prevent excessive flooring movement.

Roll material with a 3 section, 100 lb. roller after installation, crossing in a perpendicular direction after initial roll. Use a hand roller in areas that cannot be reached with larger roller. Visually inspect installation to ensure that material has not shifted and that all seams are tight.

## 6. FLOORING PROTECTION

Protect newly installed flooring with construction grade paper or protective boards, such as Masonite or Ram Board, to protect flooring from damage by other trades.

Do not slide or drag pallets or heavy equipment across the new flooring. Limit usage and foot traffic according to the adhesive's requirements.

When moving appliances or heavy furniture, protect flooring from scuffing and tearing using temporary floor protection.

All furniture casters must be made of a soft material and must have a contact point of at least 1" in width to limit indentation and flooring damage.

All rolling chairs or seating must have a resilient flooring chair pad installed over the finished floor to protect floor covering.

All fixed furniture legs must have

permanent felt or soft rubber floor protectors installed on all contact points to reduce indentation.

Floor protectors must have a flat contact point of at least 1" in width and must cover the entire bottom surface of the furniture leg.

Ensure all furniture castors and chair legs and are clean and free of any and all dirt and debris.

Routinely clean chair castors and furniture legs to ensure that dirt or debris has not built up or become embedded in castors or floor protectors.

Replace chair castors and floor protectors at regular intervals, especially if they become damaged or heavily soiled.

Place walk-off mats at outside entrances. Ensure mats are manufactured with non-staining backs to prevent discoloration.

## 7. INITIAL MAINTENANCE

Prior to initial maintenance, sweep the floor and cover with an appropriate protective product, such as Masonite, Ram Board or equivalent, to prevent scuffing and scratching that may not come out during the maintenance procedures.

Always use untreated, new or thoroughly cleaned mops and pads when conducting daily or routine maintenance. As with any maintenance program, be sure to use proper PPE (Personal Protective Equipment) per the cleaning product SDS and ensure all maintenance procedures are conducted per the cleaning products instructions. The use of Caution Tape and/or Wet Floor Signs is recommended to prevent slips and falls.

DO NOT use vacuums that have a beater bar or electric brooms with hard plastic bottoms or no padding, as this may cause discoloration, scratching and loss of sheen.

DO NOT use highly alkaline or acidic cleaners.

DO NOT use detergents, abrasive cleaners or "mop and shine" type products (such as Bleach, Pine-Sol, Clorox Soft

Scrub, Fabuloso, Mop & Glo, Mr. Clean, Murphy's Oil Soap and similar, unapproved cleaners), as they will dull the finish and sheen of the flooring material.

DO NOT use Kerosene, Gasoline, Naphtha and/or other solvents to clean Luxury Vinyl Tile.

DO NOT use sweeping compounds or cleaning agents containing oils or solvents.

Ensure that adhesive (if used) has cured for recommended period of time prior to conducting initial maintenance. Remove any protective coverings prior to cleaning. Sweep, dust mop and/or vacuum flooring to remove any dirt, dust or debris.

Mix 2-4 ounces of Excelsior NC-900 Neutral Cleaner per gallon of clean, potable water and clean floor using a rotary floor machine or an Auto Scrubber with a 22 gauge, nylon soft-bristled brush or 3M 5100 Red Cleaning pad. If flooring is heavily soiled, an additional cleaning may be required.

Use an auto-scrubber, wet vacuum or clean mop to remove any and all excess cleaning solution. Rinse area with clean, cool water and allow floor to dry entirely. Ensure flooring area is clean and that all cleaning residue has been removed (this may require additional rinsing).

## 8. WARRANTY

5 Year Commercial Warranty

15 Year Residential/Multi-Family Warranty

**FOR PROFESSIONAL USE ONLY. PLEASE CONSULT ALL ASSOCIATED TECHNICAL DATA SHEETS, SAFETY DATA SHEETS, MAINTENANCE DOCUMENTS, WARRANTY INFORMATION PRIOR TO INSTALLATION.**