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## **Diamond Surfaces Aqua Shield SPC/RIGIDCORE**

### **Installation & Maintenance Guide**

#### **Materials Required for Installation**

- Tape Measurer
- Square Ruler
- Chalk Line
- Utility Knife
- Rubber mallet
- Tapping block

#### **Acceptable Subfloors**

Diamond Surfaces and Supply will not warrant or accept responsibility of any kind for flooring failures related to the use of unacceptable substrates and surfaces. Any failure of the subfloor or flooring due to the subfloor is not the responsibility of Diamond Surfaces. **All subfloors must be tested for moisture and documented for warranties to be maintained.**

#### **Approved Substrates**

Concrete

Portland Based Underlayments Terrazzo

APA Approved Plywood Fiber Cement Underlayment

Radiant Heated Subfloors (not exceeding 85°F (29°C) Properly Prepared VCT

Properly Prepared Sheet Vinyl (single layer, fully adhered)

#### **Wood Subfloor**

Wood Subfloors must be American Plywood Association (APA) rated subfloor grade as specified and warranted by the manufacturer. **All wooden subfloors require moisture testing along with documentation.**

#### **Concrete**

See Grade Levels below. All concrete subfloors require moisture testing (see “Moisture Testing” for further details). **All concrete subfloors require moisture testing along with documentation.**

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## **Grade Levels**

### **Suspended**

An acceptable suspended floor is a concrete or wood substrate with a minimum of 18" (460mm) of well-ventilated air space beneath it. Diamond Surfaces recommends that a moisture vapor barrier be placed on the ground below the air space.

### **On-Grade**

An acceptable on-grade floor is a concrete substrate in direct surface contact with the ground at the surrounding ground level. The concrete slab should be protected from moisture penetration and incorporate a permanent, effective moisture vapor retarder with a minimum thickness of 0.010 and a permeance of 0.1 per ASTM F710.

### **Below-Grade**

An acceptable below-grade floor is a concrete substrate partially or completely in contact with the ground below the average surrounding ground level. The concrete slab should be protected from moisture penetration and incorporate a proven moisture vapor barrier. The concrete slab should be protected from moisture penetration and incorporate a permanent effective moisture vapor retarder with a minimum thickness of 0.010 and a permeance of 0.1 per ASTM F710.

## **Unacceptable Surfaces**

- Cushion-back vinyl
- Laminate
- Any floating floor system
- Carpet

## **Moisture Testing**

All concrete slabs, both old and new, must be tested for moisture transmission using the Calcium Chloride Moisture Test according to ASTM F1869. Moisture vapor transmission should not exceed the recommended levels of between 3-5 lbs. per 1,000 sq. ft. in 24 hours. **This test should be performed and documented prior to installation.**

Also test for relative humidity in concrete floor slabs using in-situ probes, which should be no more than 80% RH (HF9100) or 95% RH (HF9200) per ASTM F2170 before, during and after installation.



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### **pH Levels**

pH on concrete substrates must be between 7 and 9.

### **Storage and Handling**

Acclimate the flooring a minimum of 48 hours before installation in the area it is to be installed. Conditions between 65°F and 85°F (18°C and 29°C) are required before, during and after installation. Cartons should be evenly stacked no more than two high on a flat surface and away from any heating/cooling ducts or direct sunlight.

The floor must be clean, smooth, flat and dry. Remove all foreign substances such as wax, grease, dirt, construction marks and contaminants, and any substance or chemical that would interfere with a good bond. Avoid using sweeping compounds. Do not install over substrates that have been chemically cleaned. The flatness of wood subfloors or underlayment must not exceed on variation of 3/16" in 10 feet.

### **Underlayment**

If you choose to use an underlayment, Diamond Surfaces requires a closed cell underlayment that is no more than 1.5mm in thickness. Diamond Surfaces recommends using Diamond Surfaces LVT Underlayment. Please contact your Diamond Surfaces Representative for more information.

### **Subfloor and Wall / Door Preparation**

Note: DO NOT install cabinets on top of floating planks. The surface beneath the floor must be sufficiently prepared in advance to guarantee a successful installation of the flooring.

- Fill any low spots in the subfloor greater than 3/16 inch in 10 foot span with a Portland cement leveling compound. Diamond Surfaces recommends Sika Level 325 / Sika Skim Coat.
- Ceramic tile and embossed flooring will require skim coating with a Portland based patch to avoid bottom up pattern telegraphing. Diamond Surfaces recommends Sika Skim Coat.
- Remove any existing floor molding. Removal of wall baseboards is optional as quarter round can be installed to avoid baseboard removal.
- Undercut doorjamb so the 1/4 inch expansion space is maintained, allowing the planks to slip under doorjamb/case molding.
- Sweep the subfloor clean. The floor must also be free of all contaminants.



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## Start of Installation

Inspection of flooring material prior to installation is required. It is the purchaser's responsibility to verify with the installer that they have received the correct product before the start of installation. Any defects, wrong product, or color should be immediately reported to the retail store from which the flooring was purchased before installation (within 24hrs of install). Diamond Surfaces will not be responsible for labor costs to repair or replace material with defects, wrong product, or color that were apparent before or noticed at the end of an installation. The job site and all flooring material and adhesive must be kept for 48 hours before, during and after installation between 65 °F and 85 °F (18° and 29°C).

- Floor must be clean, smooth, flat and dry before installation.
- Check the tongue and groove to assure it is free of debris or damage.
- To achieve maximum appearance, mix planks from two to three cartons from the same production.
- Planks may be cut with a small guillotine or scored and snapped.

The advantage of Diamond Surfaces' SPC Click product is that it allows you to choose your own starting position, direction and can work one plank at a time. Due to the fact that walls are not always straight, snap a chalk line for your first row to follow.

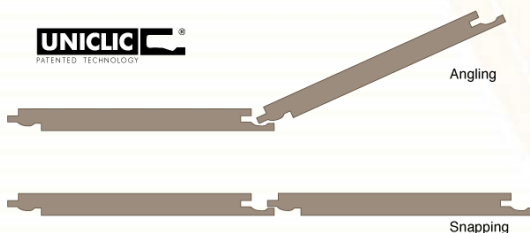
**IMPORTANT:** Maintain the 1/4-inch space around walls, cabinets, pipes, toilet flanges and any obstacle in the floor. Quarter round or baseboard molding will cover this expansion space. Make sure that you have a transition break every 30ft in either direction. Note that in doorways that are less than 6ft, use a t-molding.

**IMPORTANT:** For plank installation, staggering the end joints a minimum of 6 inches is required.

## Clicking Planks Together

To click the end joint of the plank together, click the short side of the plank/tile vertically into the previous one by engaging the **Uniclic locking system**.

Uniclic locking system



Unilin invented the Uniclic patented joint locking system. The Uniclic locking system enables you to engage the flooring panels via two methods - angling and snapping. This fact makes Uniclic one of the easiest locking mechanisms for flooring installations.

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To click the length joint of the plank together, place long joint together, lifting slightly to engage lock. Rotate downward, clicking together for a tight fit.

If there are any gaps, we recommend using a tapping block and lightly tap the edge of the material. This will bring the plank edges tight together.

Cut the plank by scoring through the top wear layer with a utility knife then snap the plank across the score.

Install adjoining rows as you did the first; one piece at a time. Holding the plank at a slight angle, place it against the profile in the first row. Rotate the plank down to secure the length joint assuring there are no gaps along the joint.

The adjoining planks are aligned by sliding the long joint into position, shifting it to properly match the end joint against the previous plank. Repeat until you reach the final row of material.

To install the final row of planks, you will usually need to cut them. We recommend the following: lay a panel on top of the last row installed. Lay another plank against the edge of the wall. Mark the plank underneath.

Cut the plank through the wear layer and snap along the score. Install the last row leaving ample expansion space.

**Note:** Avoid exposure to direct sunlight. During peak sunlight hours, the use of blinds or curtains is required. Prolonged direct sunlight can result in discoloration and volatile temperature variations causing damage to the floor, which is not covered by Diamond Surfaces.

***The flooring receipt, all moisture/relative humidity testing documentation, and the professional installers receipt will be required to file a claim. If one should arise, please contact the original purchaser to complete a claim form. In the event that you have a flooring concern Diamond Surfaces will cover the cost of hiring an independent inspector, but if the inspection report comes back deemed that it is an installation error or onsite issue, the inspection fee will be charged back to the dealer/distributor/homeowner.***

## Additional Resources

### **Uniclic Locking System by Unilin**

<https://youtu.be/GCZVH0bJjEQ>

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### Preventive Care

- Use rugs inside and outside entrances to prevent sand and abrasives from being tracked onto floor. Use soft woven rugs, clean or replace rugs as needed.
- Apply felt pads on all furniture legs to ease movement and prevent scratches. When moving furniture or appliances, use caution to avoid scratching, indentations or gouging.
- Use large soft polyurethane or rubber casters versus narrow ridged plastic ones.
- Maintain relative humidity level between 40%-60% for your good health, your flooring and furnishings. In high humidity, the use of air conditioners or dehumidifiers will control the environment.
- Stiletto high-heels and spiked sports shoes are not recommended on any of your flooring products.

### Maintenance

- Wipe up spills quickly to protect flooring from excess liquid.
- Sweep or vacuum your floor regularly to prevent dirt, dust and abrasives that can scratch or dull the finish. Note: Vacuum only with a hard floor attachment. A revolving brush can hold grit, which can damage the finish.
- Clean your floors as needed with a pH neutral cleaner.
- **No waxes, polishes, oil-based detergents or abrasive cleaners such as steel wool cleaners.**
- Spray a light mist onto the mop. Then mop floor in a back-and-forth motion in the same direction as the plank strips for best results.
- Never pour liquid cleaner directly onto floor surface.

### Floor Care Tips

- Larger pets should have their nails trimmed at all times to avoid scratching floors.
- For more difficult stains, dampen a cloth with mineral spirits and clean stain.
- For large scratches or damage, consult a professional.
- Normal daily spills of water do not affect Diamond Surfaces Aqua Shield. Please wipe up liquids as soon as you see so no one may slip and fall.