

Background

As commercial and residential design has shifted over the past decade, architects, designers and end-users are beginning to specify LVT, WPC and SPC in areas they rarely had before. One such area is wet areas - commercial bathrooms, residential bathrooms with a shower, indoor/outdoor covered walkways and any other location that is otherwise warranted for use, but could come into continued contact with topical water.

This technical bulletin includes general guidance and best practices for installing AVA LVT, HDC and HPC products in wet areas. Prior to selecting any AVA product for a wet area, be sure to review the associated warranty, the suggested applications technical bulletin and the material usage guide technical bulletin to ensure the product in mind is suitable for a wet area.

General Terms

This technical bulletin covers AVA products manufactured and applied in individual areas that may have moderate exposure to topical water. For the purposes of this Technical Bulletin and in the interest of brevity, water shall include potable water from plumbing and fixtures, grey water from sinks, showers and appliances, grey water from external sources, water-based cleaning solutions, drinks and cooking liquids. AVA reserves the right to exclude products and installations from this technical

bulletin based on information obtained prior to, during or after installation. Problems or damage due to flooding, plumbing leaks, exterior leaks, or mold or mildew growth are not covered under warranty. Please review individual warranty documents carefully prior to use for more information regarding warranty coverages. This bulletin is subject to change - please visit avaflor.com or contact the AVA technical department for the most current version.

Important Considerations

Topical water itself will not cause physical damage to AVA LVT, HDC or HPC products - they will not delaminate, deform or experience dimensional irregularities due to exposure. The main concern is water's natural tendency to follow gravity to the lowest point of an installation, which happens to be dark and could potentially stay damp for long periods of time. When water makes its way beneath flooring, it can break down adhesives, collect in low spots or deviations and, eventually, sponsor organic growth. Additionally, topical water can spread to adjacent areas of the installation, causing issues for building materials that are sensitive to water or more easily sponsor organic growth.

While it is hard to account for water emergencies, it is critical that water intrusion be prevented in areas where moderate topical liquid exposure is expected. Without a clear avenue to work its way beneath flooring, water is significantly less likely to become an issue. This may require adjusting adhesive usage, using a silicone caulk to seal the perimeter and/or full adhering loose lay or click-and-lock flooring.

Substrate Preparation

Substrates must be within flatness tolerances, especially to avoid voids and low spots where water can collection. All cementitious products must be watertight or waterproof to prevent potential issues with topical water exposure. Follow the product manufacturer's recommendations regarding preparing the substrate - this may require the use of a primer. Additionally, the product manufacturer will likely require an extended curing time to allow for the installation of MS, urethane and/or epoxy adhesives. Ensure these guidelines are followed to avoid compromising the strength of both the patch and the adhesive. All other existing substrate preparation requirements apply - see the associated technical data and ensure all applicable procedures are followed.

Glue-Down LVT Recommendations

The main concern when installing Glue Down LVT in wet areas is the adhesive. While acrylic adhesives are extremely resistant to topical water, there is always a risk that continual exposure can cause adhesion issues.

Additionally, if the adhesive bond were to become weakened, it could create a potential void for water to collect and sponsor organic growth.

To prevent this from happened, we recommend using the Gold Series MW 3010 Modified Silane adhesive. In addition to the superior strength of this adhesive, it is waterproof once cured and will not break down due to water exposure. Using the MW 3010 in wet areas will stabilize the LVT and prevent potential avenues for water from forming. Follow all of the standard installation instructions for the LVT in use and the MW 3010 adhesive to ensure the material is properly handled and installed.

Loose Lay LVT Recommendations

Loose Lay LVT is similar to Glue Down LVT in most ways, but differs in one important way: it usually doesn't require full adhesive coverage. While this isn't a significant issue in most areas, this creates a clear issue in wet areas: the lack of adhesive coverage creates a clear avenue for moderate water exposure to work it's way beneath the floor. Once beneath the floor, this water could collect in low spots, voids and deviations and sponsor organic growth.

To prevent this from happened, we recommend using the Gold Series MW 3010 Modified Silane adhesive to fully adhere Loose Lay LVT, similar to the way we recommend Glue Down LVT be handled in wet areas. Follow all of the standard installation instructions for the LVT in use and the MW 3010 adhesive to ensure the material is properly handled and installed.

HPC/HDC Recommendations

Considering the aforementioned concerns with wet areas, AVA HPC and HDC products create a unique challenge in wet areas, since they will both span deviations and voids and are entirely glue-less. If the substrate is not within flatness tolerances, this could create an avenue for water when the material flexes as well as a void for water to easily collect under. Since HPC and HDC products are commonly used in areas that are non-porous or mostly non-porous, water could collect under the material for long periods of time and sponsor organic growth.

Though it is discouraged in most applications, fully adhering HPC and HDC products is recommended

in wet areas. This will ensure that water does not have a place to collect beneath the material and does not have an avenue to get beneath the material at perimeters or seams. **Be sure to review the Rigid Core warranty, as well as the Suggest Application and Material Usage Guide technical bulletins prior to use.**

When adhering HPC and HDC products down, we recommend using the Gold Series 3010 adhesive Modified Silane Resilient Flooring adhesive. A 1/16" x 1/16" x 1/16" V Notch Trowel must be used to ensure adequate transfer and coverage. Follow all adhesive instructions per the technical data for the adhesive and install the material as usual per the installation instructions. Ensure that the adhesive does not get into locking mechanisms and ensure that the short side locking mechanisms are fully engaged using a #2 rubber mallet.

Fully adhered HPC and HDC areas must be isolated from adjacent areas that are intended to be floating. A suitable accessory or transition should be used wherever applicable - ensure the transition allows for movement on both . When fully adhered, the perimeter gap can be decreased to 3/16" between the flooring and **all** vertical surfaces.

Pay close attention to adhesive working times – this may require making difficult cuts, like rip cuts, prior to applying adhesive. Avoid working directly on material while adhesive is still wet – if this isn't possible, be sure to use a kneeling board of some kind to disperse weight evenly. Glue-Down installations with a click-and-lock product can be messy, however the adhesives will not mar the surface, should it dry on it. Any excess adhesive can be cleaned with denatured alcohol while adhesive is wet or mechanically removed with a 3M red or white pad once adhesive is dry.

Perimeter Caulking

In addition to the waterproof adhesive, it is recommended that the perimeter of the installation be sealed with a 100% silicone anti-microbial caulk, especially if a click-and-lock product is used. This will prevent water intrusion or accumulation along the perimeter of the installation and prevent water from traveling to adjacent areas. This process can be done prior to or following cove base, molding, accessory or quarter round installation. Color-matched silicone caulk is available for all AVA colors.

For additional information, please consult the associated product technical information or contact AVA technical services: 1.800.861.5292 - support@avaflor.com