

Installation Expertise with Tim McAdoo

What Exactly is Luxury Vinyl Tile

In the flooring world, there has always been a vinyl tile in one form or another. Today, the vinyl tile category continues to remain popular today, and continues to be the fastest growing market segment with double digit growth last year. LVT (Luxury Vinyl Tile), which offers 3D printing technology which adds depth and realism, durability, with a high performance wearlayer to a vinyl tile product. LVT offers the option of a less permanent floor than wood or ceramic tile, especially with the growing popularity of floating LVT floors. When a consumer selects a wood or ceramic floor, they should really be in love with it, as it will probably be in the home for a very long time. Whereas, LVT offers the option of changing the room design much easier.

The term Luxury Vinyl Tile (LVT), is not recognized as a separate flooring category by ASTM, but it is a term that known all over the flooring industry. ASTM International, is an international standards organization that develops and publishes voluntary consensus technical standards for a wide range of materials, products, systems, and services.

ASTM has industry standards for resilient flooring and there are only two products in the category of Vinyl Tile;

- Vinyl Composition Floor Tile (VCT) ASTM F 1066, and
- Solid Vinyl Floor Tile (SVT) ASTM F1066.

There is no ASTM Specification for Luxury Vinyl Tile. The difference is that Solid Vinyl Floor Tile has a minimum vinyl or binder content. Products with a vinyl or binder content of 34% or higher are classified as Solid Vinyl Floor Tile and products less than 34% vinyl or binder content are VCT.

ASTM F 1700, Standard Specification for Solid Vinyl Floor Tile classifies Solid Vinyl Tile in three categories;

Class I Monolithic, which means through color tile with no backing

Class II Surface Decorated, which usually means an “inlaid” type tile with a backing

Class III, Printed Film Vinyl Tile, which is a photographic print film with a clear vinyl wearlayer and a backing system. A minimum wearlayer thickness of 0.020” (20 mils) will classify the Class III product as Commercial.

Type A - Smooth Surface

Type B - Embossed Surface

Physical Property Requirements Tests

- Size
- Thickness
- Squareness

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- Residual Indentation
- Flexibility
- Dimensional Stability (important requirement)
- Resistance to Chemicals

Solid Vinyl Tile installation is usually different from VCT installations. Clear Thin Spread Adhesives are mostly used for VCT and have long working (up to 24 hours). Trowel the adhesive over large areas, and allow it to dry to the touch, and there are several hours of working time to get the VCT installed. LVT (Solid Vinyl Floor) products may also be able to be installed with pressure sensitive adhesive, although they are not the same adhesives as VCT, they have more binders and latex to bond to the added vinyl content and hold it into place and have shorter working times (generally up to 2 hours). Solid Vinyl Floor Tile may also be wet set or adhered using a Vinyl Spray Adhesive, depending on the application.

LVT (Solid Vinyl Floor) also offers plank and tiles with high end realistic 3D visuals that can be grouted which resembles Ceramic and Stone installations without the use of backer board and thinset. These products can be found with glue down and floating installation options.



Armstrong Alterna Reserve



Floating Groutable LVT Metroflor Aspire

LVT or Solid Vinyl Floor Tile offers several installation options which ease the installation application;

- Loose Lay
 - Tape Systems
 - Clic and Locking Systems
 - Floating with no locking mechanism, but help in place by adhering the perimeter with glue or tape

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- Glue Down
 - Trowel or Roll On Applied
 - Spray Adhesives

What differentiates one LVT (Solid Vinyl Floor Tile) from another? In my opinion, there are two factors (in order);

1. Wearlayer thickness (thickness of 20 mils or more will classify Class III product as Commercial).
2. Installation System
 - Loose Lay
 - Glue Down

Let's look at both scenarios;

- **Wearlayer thickness** - the thicker the better. The wearlayer is usually a heavy film of vinyl cover with a UV Cured Urethane wearlayer for better scuff, stain and scratch resistance. Is there a difference between a 12 mil vinyl wearlayer and a 12 mil wearlayer with a urethane coating? Definitely. Urethane provides better scuff, stain and scratch resistance. Wearlayer thickness is measured in mils.



- **Installation System** - depending on the environment the product is being installed should determine the installation requirements of the product. For Example; if an area is subject to heavy rolling loads, and pinch points, a glue down product is a better installation option than a floating installation.

Installation issues I see within the LVT product segment are;

- Loose Lay Installations – flooring is installed prior to cabinet placement. Cabinets are installed on top of floor, and floor buckles.

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- Lack of expansion given on floating products. Product is not given enough room to accommodate subfloor movement. Flooring is fit to tight to walls and cabinets. **Think Laminate when installing LVT.**
- This is vinyl; it requires acclimation and a constant living temperature. When cold, it contracts. When warm, it expands. Stabilize conditions to living conditions. If conditions fluctuate, so does the product.
- People think Loose Lay floors can go over anything. Fact; Loose Lay floors require as much prep if not more than a glue down floor. You can't cover bad floor prep with LVT and get away with it.
- Glue down installations requires time to dry. Cover the flooring with panels to disperse load bearing areas and pivot points to prevent flooring from moving until the adhesive as time to set up, generally 24 to 72 hours.

There are also options for sound reduction under LVT. For floating applications, most suppliers have a sound reducing membrane product for use under the LVT.

For glue down installations, JJ Haines has 2 options;

- We Cork WECU Silently LVT (may also be used under floating LVT) - <http://www.wecork.com/products/wecu-underlayment/>
- Floor Muffler LVT - http://www.floormuffler.com/poduct_lvt_product_info.html

JJ Haines has several great suppliers of Luxury Vinyl Tile (Solid Vinyl Floor) products;

Armstrong (Residential & Commercial) <http://www.armstrong.com/>

Artistek - <http://www.artistekfloor.com/>

Flexco <http://www.flexcofloors.com/products/vinylflooring/index.html>

Konecto <http://www.konectousa.com/>

Metroflor <http://www.metroflorusa.com/>

Metroflor Aspire <http://www.aspireflooring.com/res/home.html>

Metroflor Engage <http://metroflorengeage.com/>

Roppe <http://www.roppe.com/default.asp>

Starloc <http://www.starlocusa.com/>

Tarkett/Nafco <http://www.tarkettna.com/Products/LuxuryFloors>

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About Tim McAdoo:

Tim is a certified instructor for Armstrong/Bruce, Avaire, Konecto and Starloc products and has been a member of the Armstrong Installation Training Team since 1984. Tim has highly developed installation skills and qualifications that have been combined over his 32 years in the floor covering industry. Tim is privy to all the latest innovations and techniques used in the installation of their products.

We are sure you will find your skills improved after attending one of his installation courses.



To view a complete list and register for one of Tim's installation trainings, click here on the QR or visit: <http://www.jjhaines.com/for-customers/installation-training/>



CONTACT TIM

 tmcadoo@jjhaines.com

 410-903-2930