VIM Products, Inc.

The Level Entry Shower System™

Installation Guide

for

Wood Construction

Create Spa-Like, Accessible, Curbless Showers

www.vimproducts.com

English*

Code Approved

Website

*INSTRUCCIONES EN ESPAÑOL EN WWW.VIMPRODUCTS.COM/ESPANOL

Level Entry Shower System™
from VIM Products, Inc.

About the Product

The **LEVEL ENTRY SHOWER SYSTEM ™** or **"LES"** as we will refer to it in this installation manual has been engineered to the highest standards available. It has been designed to be user friendly and is quickly becoming the preferred method to install curbless showers. The LEVEL ENTRY SHOWER SYSTEM ™ **does not require cutting of any structural floor system** and is compatible with traditional joist systems, I-Joists, engineered truss systems and concrete floor applications.

The LES-6048 pan is made from clean, recycled ABS plastic and can be field cut to fit almost any shower configuration. In the event that your installation requires cutting of the pan, we have included reinforced screw guides and additional bracing under the pan for strength. The cut lines and screw guides are easily located via dimple marks on the top of the pan. Additionally, we have included a pre-textured surface on our pan to create a strong chemical bond between our pan and the waterproofing membrane applied to it.

The LES-2012 drain assembly is made from ABS plastic conforming to cell class 20211 and ASTM D3965. Our drain is one of the strongest and easiest to install in the industry. The LES-20171 strainer adjuster allows for thin or thick tile installations and our LES-20131 cup assembly allows quick and confident connections to 2" or 3" PVC, Cast Iron, Copper and ABS pipe.

Tile showers created using traditional PVC shower pan membranes are more susceptible to leaking due to numerous penetrations made through the membrane during construction. Anyone that has ever owned a tile shower created using this method has most likely had to deal with it leaking at some point. Our superior waterproofing products combined with our installation procedure help form a durable, water tight barrier that is sure to give many years of leak free showering.

Our Complete Kit (LES-6048 LEVEL ENTRY SHOWER SYSTEM ™) has been tested and certified to meet the requirements of the LC-1030-2011 and ICC-ES-PMG Listing # PMG-1094. We have included a copy of our code compliance in this manual for your reference. For the most current copy, please visit our website, www.vimproducts.com.

Before You Begin

Items Needed

Phillips Head Screwdriver
Hammer, Level
Carpenters Square
(2) 5 Gallon Buckets
Grinder (to Cut Tile Backer Board)
Skill Saw
Reciprocating Saw
Hand Drill w/ #2 & #3 Phillips Bit
5lb Plumbers Putty
2" Drain Test Plug
(32) #14 x1.1/2" Wood Screws
(32) 1/4 x2.3/4" Tapcons and bit *(concrete installs only)*
Pencil / Marker
Finishing Trowel
1/4" Notched Trowel
Heavy Duty Mixer
Sponge
Modified Thinset
Quick drying, non shrink patch

Key Notes

1. It is recommended that floor elevations and tile thicknesses are known before starting to ensure the best finished results. When considering elevations, remember that our LES pan sits on top of the existing floor supports and is only 7/8" thick at its thickest point.
2. When designing a shower, we recommended the pan tile extending a few inches outside the shower opening.
3. **Marble**, tile larger than 4"x4" and rounded pebbles should not be used for the shower floor area.
4. Epoxy grout is recommended, but not required on the shower pan area.
5. Any penetration made through the showers waterproofing membrane should be drilled, thoroughly cleaned and then filled with 100% GE Silicone.
6. Always follow the TCNA (Tile Counsel of North America) recommended procedures for tile installation methods.
7. Always follow national and local plumbing codes.
8. Shower spray patterns should always be taken into consideration when laying out your new shower system. A downward spraying shower head is recommended.

IMPORTANT: When the tile installation begins, the bathroom floor tile should always be installed first. In some instances, depending on the tile thicknesses, a secondary pitch from the bathroom floor tile to the shower pan may be required. If a re-pitch is required, once dry, the re-pitched area should be coated with waterproofing prior to tile being installed. If further clarification is required, please contact customer service at 1-855-611-7574.

Installation

The following procedures will guide you through the installation of the **LEVEL ENTRY SHOWER SYSTEM™.**

STEP #1 - Pan Layout

If space allows, lay your pan on the floor and mark the drain opening. Make sure there are no structural members below that interfere with the required 8" diameter hole opening for the drain assembly. If your shower space does not allow you to lay the entire pan in your shower area , the pan may be cut with a skill saw using a standard wood cutting blade. Note that the pan can be placed tight to the wall, or if cut, it should be pulled out away from the adjoining wall approx. 2"to 6" . The pan should always be positioned so there is positive slope past the "shower opening" by at least 2".

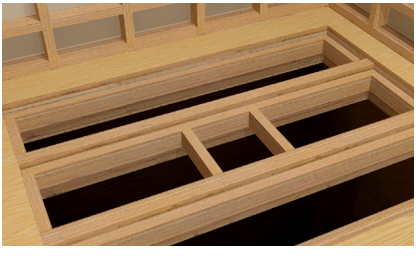
Tip: The slope of the shower floor can be extended with a quick setting patch material (See step #9) such as Laticrete's NXT-Patch or Mapei's Mapecum Quick Patch.

STEP #2 - Floor Cut

Once the pan has been positioned and the floor marked, cut the floor area out with a skill saw. Set your saw blade just deep enough to cut the sub-floor, taking care to not cut anything below the sub-floor.

STEP #3 - Joist Sistering

Measure and cut 2x4's to picture frame the opening between the joists. Apply construction adhesive and screw or nail the 2x4's to the sides of the joists. The 2x4's should be held 3/4" below the top of the joist. Install (2) cross supporting 2x4's near the drain opening. These pieces should be positioned leaving clearance for the required 8" diameter opening for the drain assembly.



STEP #4 - Drain Installation

For installations without access below, set the pan in place and pull measurements to the center of your drain opening. Remove the pan and install your drainage waste pipe. This pipe can be stubbed above the subfloor several inches and then cut to the proper height later on.

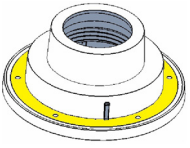
Tip: The finish height of the drain pipe should be just above the top of the gaskets lock ring, or approx. 1.1/4" below the top of the LES2012 Drain Cup.

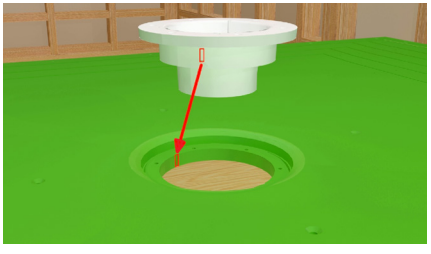
STEP #5 - Plywood Sub-Floor

Cut 3/4" plywood to fit between the joists and on top of the 2x4's.Cut the pieces enough to slide under the existing subfloor on each end. Apply construction adhesive to the top of the 2x4's, insert the plywood and screw or nail into place.

STEP #6 - Drain Cup Install

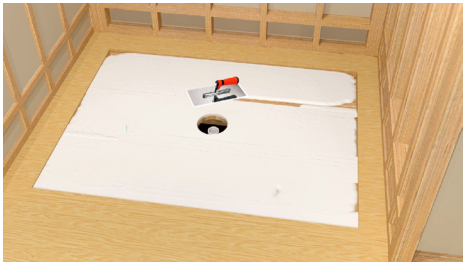
Using the 1 oz. tube of silicone provided, **coat the entire bottom** (highlighted in yellow) of the LES-20131 Drain Cup **ensuring full coverage around the screw hole areas.** Insert the LES-20131 cup into the pan. Rotate the cup until it drops into the alignment groves and hand tighten with the (6) screws provided. Immediately clean all excess silicone from the pan. Once dry, remove any remaining silicone residue from the pans surface.





STEP #7 - Setting the Pan

Mix latex modified thinset according to the manufacturers instructions. Completely fill the bottom side of the pan with thinset and the recessed floor area using a 1/4" notched trowel. Add additional thinset to any low areas to ensure the pan will set level when done. Carefully set the pan into place. Install (4) #14-1.1/2" screws (not provided) into the pre-drilled holes located near the drain. Install the remaining perimeter screws verifying that the pan is remaining level as you go.



Tip: The LES-6048 Shower Pan is pre-sloped at 1/4"/ft. The pan **MUSt** be installed level. Failure to do so can result in improper drainage.

STEP #8 - Tile Backer Board

Cut 1/2" tile backer board approx 12" - 18" high and screw to the walls. Determine the thickness of floor backer board and install so the slope from the backer board to the pan will be a min. of 1/4"per ft. On a typical 3/4" sub-floor installation, our 7/8" thick LES-6048 pan will sit 1/8" higher than the surrounding sub-floor. Therefore, if you are installing 1/4" backer board keep it 6" away from the pan.

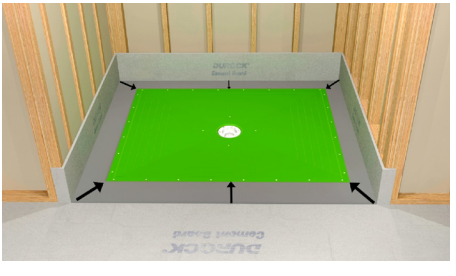
STEP #9 - Floor Sloping (if required)

Measure, cut and place the mesh provided into any areas that require sloping. Mix fast drying patch according to the package label and trowel into the recessed areas. Install the patch ensuring that all potential "wet areas" slope back towards the pan and drain.

TIP: The fast setting patch dries quickly and the waterproofing membrane can be applied immediately after drying. Due to their quick drying properties, patch should only be installed by experience installers. The following patches are acceptable to use for sloping and filling voids. North American NA-500 Patch (Feather to 1/2" thickness), Mapei Mapecem "Quick Patch" (Feather to 3") or Laticrete NXT-Patch for (Feather to 1-1/2") slopes. Other quick drying, non-shrinking patches may be acceptable. Please call for approval before substituting.

NEVER use thinset as a patch material!

If patch is being installed over anything other than plywood, pre-treat the area with a thin coat of the waterproofing liquid provided. Allow to completely dry and then install the patch material.



STEP #10 - Seam Waterproofing

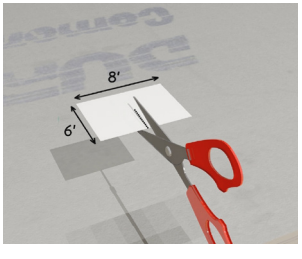
Before starting - Ensure that the entire area to be waterproofed is wiped clean of all debris and that no silicone residue remains on the pan. Precut 6" wide strips of reinforcement fabric before waterproofing is applied. Apply the waterproofing membrane provided with a 4" wide paint brush to all corners and seams. Cover approximately 5" on both sides of seams. This first coat will be absorbed quickly.

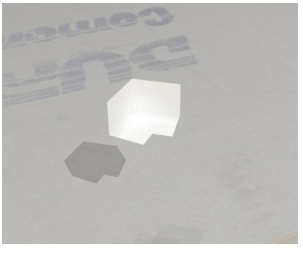
Apply a 2nd coat of waterproofing to the seams. Fold the precut 6" wide reinforcement fabric strips in half and position into place while the waterproofing is still wet. Tuck the reinforcement fabric into place creating 90 degree angles. The fabric should not roll at the seams.

Waterproof over the top of the fabric and let it dry thoroughly.

TIP: Always install fabric while the waterproofing is wet. Cut any bubbles with a razor knifre, press flat and re-apply waterproofing over the area.

Cut a piece of the 6" fabric approx, 8" long. Cut this piece 3" up the 6" length and fold to creat a corner dam as shown. Apply waterproofing to the corners, insert the corner piece and waterproof over again.





STEP #11 - Pan Waterproofing

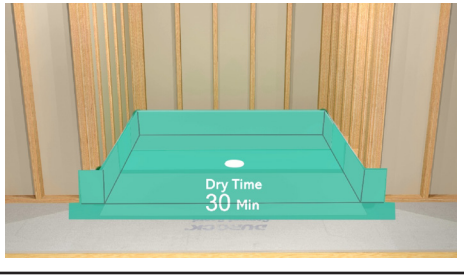
Starting at the rear of the shower, precut strips of the large reinforcement fabric wide enough to cover the shower area, holding it 1/2" off the walls. **Apply thin, even layers** of waterproofing with the 4" wide paint brush provided to an area slightly larger than the reinforcement fabric will cover. **The 36" wide fabric is no longer required to roll up the walls as shown below.**

Avoid waterproofing over the (6) smalle female grommets on the drain. Lay the fabric into position, smoothing it with your hands. The fabric should always be installed into a wet layer of waterproofing. Once in place, waterproof over the top of the fabric and move to the next section.

Follow the same procedure for the remaining sections of the pan. Let the waterproofing dry and re-coat the entire shower area again. This coat should dry for approx. 30 minutes. This entire process can typically be completed in one day however, first installations may take slightly longer. Re-coat the entire pan and let it to sit for approx. 24hrs or until completely dry.

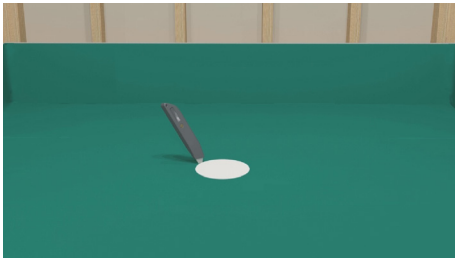
Temperature and humidity can shorten or increase dry times. Follow the manufacturer's instructions included with the waterproofing.

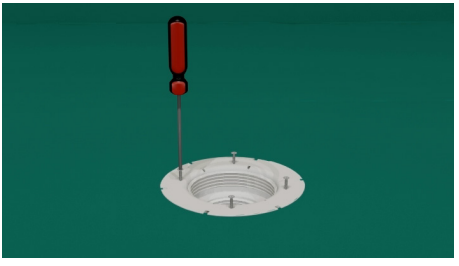
Once complete, the waterproofing should be about the thickness of a credit card or 0.5–0.8 mm thick when cured.



STEP #12 - Insert Flange Connection

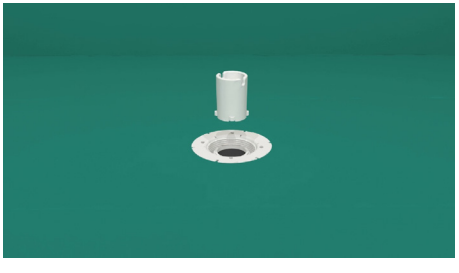
Locate the LES cup outer edge with your fingers and carefully cut the fabric using a utility knife. This cut should be made so the fabric is tucked at least 1/2" under the Insert piece. Rotate the Insert until it drops into the alignment groves, hand tighten with the (6) screws provided. The fabric should be under the Insert at least 1/2" and all exterior weep holes should be clean. **IMPORTANT - Do NOT use silicone on this piece.**





We are now ready to complete the drain seal. When complete, the waste pipe should extend up slightly higher than the gasket even with the flat part of the drain cup. This pipe can also be cut using an inside PVC pipe cutter (shown below) and should be cut even with the top of the lock ring threads. Remove any debris that may be present where the gasket inserts prior to installing the gasket. This must be a clean seal. Remove any burrs from the pipe, apply a small amount of gasket grease to the gasket and firmly press into place **(beveled end up)**. Screw the gasket lock ring into place and tighten with the lock ring tightening tool provided.

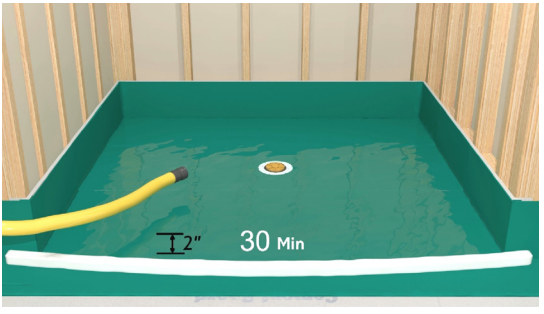
TIP: The lock ring tightening tool has been designed so it can be flipped over to aid in pressing the gasket into place.



Inside Pipe Cutter

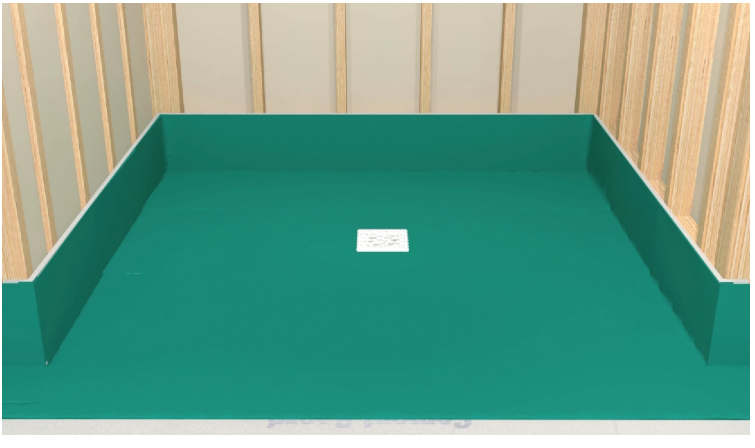
STEP #13 - Testing

Seal the drain opening with a test plug and create a temporary dam at the front of the shower using plumbers putty. For larger showers, flexible molding can be used with putty to help create the dam. Fill the shower with 2" of water for 30 minutes or as long as local codes require. Once complete, pull the test plug and remove all the putty from the shower floor and walls.



STEP #14 - Adjuster, Retainer and Grate Installation

Thread the LES-20171 adjuster into the insert. Verify the LES-20191 retainer o-ring is seated properly in the grate retainer and press into the adjuster. These two pieces may be seperated during the tiling process if the finished grate height need to be adjusted up or down. Once the final grate retainer height is achieved, apply a supporting bed of thinset under the grate retainer and press firmly into the adjuster.

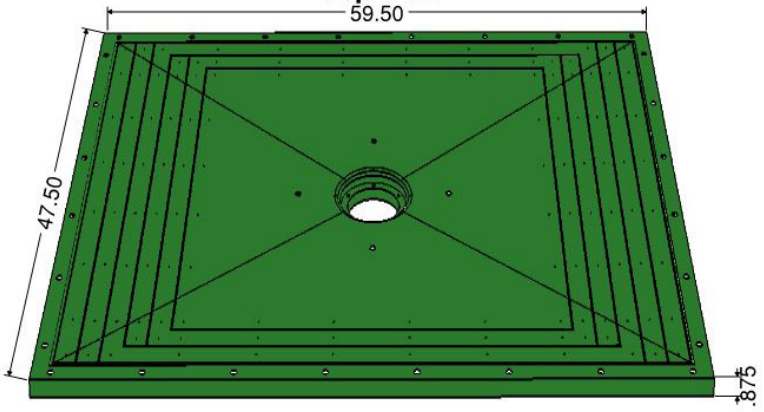


CONGRATULATIONS!

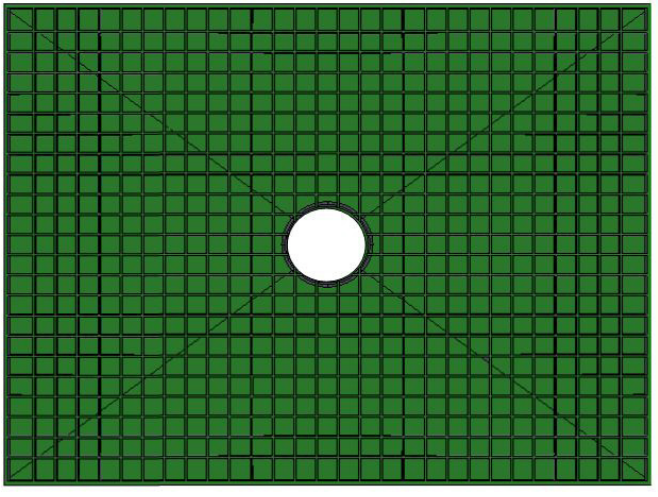
Your LEVEL ENTRY SHOWER SYSTEM™ is installed!

Parts Breakdown

Top View



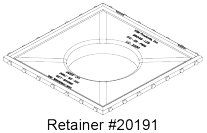
Bottom View



Side View

Level Entry Shower System™
from VIM Products, Inc.

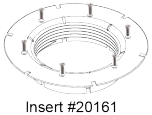
LES-Strainer



Retainer #20191

O-ring #20181

Adjuster #20171



Insert #20161

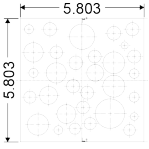
Lock ring #20151

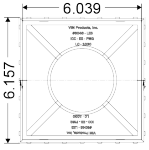
Drain Gasket #20141

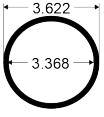
Cup #20131

Silicone Sealant

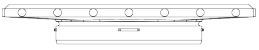
Gasket Grease







Lock Ring Tightening Tool



(6) M4x10mm
Stainless Steel Screws
#20161-6

(6) M6x16mm
Stainless Steel Screws
#20131-6

Grate Removal Tool

ICC EVALUATION SERVICE
Most Widely Accepted and Trusted

ICC-ES PMG Product Certificate

PMG-1094

Effective Date: August 2017
This listing is subject to re-examination in one year.

www.icc-es-pmg.org | (800) 423-6587 | (562) 699-0543 *A Subsidiary of the International Code Council®*

CSI: DIVISION: 22 00 00 — PLUMBING
Section: 22 40 00 — Shower Pan Liners

DIVISION: 09 00 00 — FINISHES
Section: 09 30 00 — Tiling

Product certification system:

The ICC-ES product certification system includes testing samples taken from the market or supplier's stock, or a combination of both, to verify compliance with applicable codes and standards. The system also involves factory inspections, and assessment and surveillance of the supplier's quality system.

Product: Tileable Shower Kit

Listee: VIM Products
5060 Trademark Drive
Raleigh, North Carolina 27610
www.vimproducts.com

Compliance with the following codes:

2015, 2012 and 2009 *International Residential Code*® (IRC)
2015, 2012 and 2009 *International Plumbing Code*® (IPC)
2015, 2012 and 2009 *Uniform Plumbing Code*® (UPC)*
2012 North Carolina Plumbing Code (2009 IPC with North Carolina Amendments)
248 CMR, *Massachusetts Fuel Gas and Plumbing Code*
2015 and 2010 *National Plumbing Code of Canada* (NPC)**
2011 *Uniform Plumbing Code – India* (UPC-I)

**Uniform Plumbing Code* is a copyrighted publication of the International Association of Plumbing and Mechanical Officials
***National Plumbing Code of Canada* is a copyrighted publication of the National Research Council Canada

Compliance with the following standard:

ANSI A 118.10-2014, Specification for Load Bearing, Bonded, Waterproof Membranes for Thin-Set Ceramic Tile and Dimension Stone Installation.
ICC-ES LC1030-2011 PMG Listing Criteria for Prefabricated, Tileable Shower Receptor
ASME A112.18.2/CSA B125.2-2015, Plumbing Waste Fittings

Identification:

6048-LES Tileable Shower Kit described in this listing must be identified by a stamp bearing the manufacturer's name or trademark, the model number and the ICC-ES PMG listing mark.

Installation:

Each Tileable Shower Kit must be installed in accordance with the manufacturer's published instructions and the applicable codes.

The Tileable Shower Kit surfaces to be covered shall be smooth and free of irregularities that would make installation covering uneven. The size and slope shall conform to the requirements of the latest editions of the International Plumbing Code, International Residential Code and Uniform Plumbing Code. Provision shall exist to allow movement of water along the prefabricated, tilable shower receptor into drain.

The Shower Lining membrane shall conform to ANSI A118.10 and shall have a current listing with an approved third-party certification agency. Provisions shall exist to allow movement of water along the shower lining membrane into the drain. Attachment of the membrane to the shower kit, in the field, shall be made in accordance with the manufacturer's published installation instructions.

The shower drain shall conform to the applicable material and performance requirements in ASME A112.18.2/CSA B125.2 and shall have a current listing with an approved third-party certification agency. Attachment of the drain to the receptor, in the field, shall be made in accordance with the manufacturer's published installation instructions.

Models:

6048-LES: Level Entry Tileable Shower Kit

Conditions of Listing:

1. Shower floors shall be sloped toward the shower drain.
2. Level Entry Shower Receptor Kits are produced by VIM in Raleigh, North Carolina, under a quality control program with annual surveillance inspections by ICC-ES.

VIM Products, Inc.
Level Entry Shower System™

VIM Products, Inc - Ten (10) Year Limited Warranty

COVERAGE AND CONDITIONS: Subject to the conditions and limitations as stated hereinafter, VIM Products, Inc. warrants that VIM Level Entry Shower System™ model LES6048 pan and LES2012 drain assembly (the "base products") will be free from manufacturing defects and will not rot, deteriorate, or break down for a period of ten (10) years from the date of purchase only when the components of the water-proofing kit are used and installed within the water-proofing kit's shelf life and in accordance with the terms and conditions of the VIM Product's Technical Installation Manual.

Further, subject to the conditions and limitations as stated hereinafter, VIM Products, Inc. warrants that VIM Level Entry Shower System™ model LES-WPK (the "water-proofing kit") will be free from manufacturing defects and will not rot, deteriorate, or break down for a period of ten (10) years from the date of purchase only when the components of the water-proofing kit are used and installed within the water-proofing kit's shelf life and in accordance with (1) the water-proofing kit's original manufacturer's technical data sheets and other written instructions*, (2) applicable building codes and regulations*, (3) standard industry practices*, and (4) VIM Product's Technical Installation Manual* that is not in conflict with the water-proofing kit's original manufacturer's technical data sheets in effect at the time of installation. *All of which require a minimum 30 minute water test of the complete installed VIM Level Entry Shower System™ prior to installing tile. Verifiable evidence of a successful water test, approved by a code official, is a condition of warranty coverage.

It is the sole responsibility of the installer, general contractor, architect of record, or owner, as a condition of warranty coverage, to determine the suitability and compatibility of our system for the user's intended use. It is required that the VIM Products, Inc. Level Entry Shower System™ be installed by a professional contractor. It is the responsibility of the installing contractor to assure the proper drainage of water by verifying the levelness of the base products and the height of the adjustable drain strainer relative to the surrounding tile. Further, it is the responsibility of the installing contractor to assure that a successful and verifiable water test has been conducted upon the installed, pre-tiled system. Efflorescence is considered to be a natural occurrence with cementitious materials and is therefore not considered to be a defective condition and is not covered by this warranty.

EXCLUSIONS FROM WARRANTY COVERAGE: The following are specifically excluded from coverage under this warranty: structural failure of floor or building, inadequate subflooring, or improper subfloor preparation; damages caused by Acts of God, including, but not limited to hurricane, flooding, earthquake or other types of natural disaster, or as a result of unforeseen circumstances; acts of negligence or product misuse or abuse; failure to comply with our technical data sheets and other written instructions; failure to comply with the guidelines set forth by International Code Council listing criteria for prefabricated, tilable shower receptor kits (LC1030-2011 PMG), applicable building codes and regulations; failure to comply with the Tile Council of North America's installation guidelines, and standard industry practices; exposure to sunlight and age; subfloor moisture or water damage; damage or cracking due to structural movement; improper application of products; and faulty workmanship or installations; and failure to maintain finished system with proper care.

YOUR LEGAL RIGHTS: This constitutes your entire express warranty for the product or system purchased. To the extent permitted by law, all other warranties, whether express or implied, including, but not limited to the implied warranties of MERCHANTABILITY and FITNESS FOR A PARTICULAR PURPOSE are EXCLUDED. ANY IMPLIED WARRANTIES ARISING BY OPERATION OF LAW ARE LIMITED IN DURATION TO THE TERM OF THIS WARRANTY, BUT SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU. No implied warranty can be modified by any course of dealing, course of performance or usage of trade. This warranty gives you specific legal rights and you may also have other rights which vary from state to state. This warranty: (a) shall commence on the date of purchase of our product or system and shall end as specified in paragraphs one and two of this document; (b) is limited to the original purchaser and is nontransferable; (c) replaces all previous warranties; and (d) applies only to purchases and installations within the United States and Canada on or after January 1, 2013.

YOUR EXCLUSIVE REMEDY: If the Products fail to meet this warranty, then the owner's exclusive remedy and the sole obligation of VIM Products, Inc., at its election, shall be to a) reinstall or replace the failed portion of the tile assembly or b) pay an amount not to exceed the original square foot cost of the installation of the tile assembly verified to be defective. Tile assembly is defined to include all VIM Products, Inc. materials, non-reusable tile surfaces, and the appropriate setting and grouting materials. Further, due to conditions beyond the control of VIM Products, Inc. (e.g., color and shade availability, discontinuation, normal wear and tear), VIM Products, Inc. cannot guarantee or warrant an exact match to the specific tile, stone, or other flooring materials used in the installation. In such events, substantially similar materials may be substituted.

FILING A CLAIM: To file a claim under this warranty, you must contact us, in writing, within fifteen (15) calendar days of the discovery of the alleged manufacturing defect in our product or system, at VIM Products, Inc., Attn: Technical Services Department, 5060 Trademark Dr., Raleigh, North Carolina, 27610. Claim must include a brief description of the problem including photographs, preferably in digital format, together with the date and proof of purchase of products, name and address of original installer, proof of cost of the original installation, and qualified third party or code official documentation certifying the successful completion of a minimum 30 minute water test must be submitted with any notice of claim. Vim Products, Inc reserves the right at its election and as a condition of this Limited Warranty to physically inspect the installation site and obtain samples from that job installation and of our product or system used in that installation before we determine the validity of your claim. Your claim must be received and evaluated by us before any repair or replacement work is performed, failure to provide the above information shall void this warranty and this Limited Warranty shall be of no legal effect. For the latest information regarding Vim Products, Inc., Limited Warranty, Installation Instructions, Technical Data Sheets and Code Approval Documents please visit our website at: **www.vimproducts.com**

VIM Products, Inc.
Phone: 1-919-277-0267
Toll Free: 1-855-611-7574
www.vimproducts.com