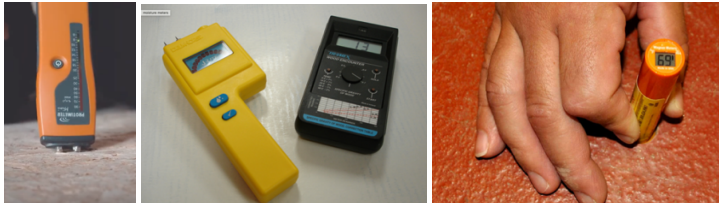




**Elastilon offers a safe and brilliant solution in the evolution of hardwood floor installation.** “GLUE DOWN & FLOATING” at the same time. The Elastilon mat is a single sided **permanent** bond mat. The underside of the mat floats over and is not fixed to the slab/subfloor at all. The hardwood is fully adhered to the top surface of the mat (which is the sticky side) and no glue is to be used in the Tongue & Grooves. In general, floating floors are a far safer option than a fixed to slab/subfloor installation and the reason for this (especially over concrete on and below grade) is that because the floor is floating one can now place a 6mil poly plastic over the slab (which has a zero-perm rating) which prevents any moisture vapor from getting to the underside of the floorboards. Moisture from below is the most common cause of cupping and floor failure. The other common cause of failure is pressure cupping, which is caused when a floor over expands due to high humidity or insufficient acclimation in humid areas and causes the floor to expand in its width and move into and close the expansion joints on the perimeter and if the floor continues to expand against the walls, that pressure can create what is known as “pressure cupping.” With a floating floor, no pressure cupping should occur at all, as the floor is not fixed to the slab/subfloor, so it will simply bulge upwards and if this happens one can now be grateful that the floor is floating and not fixed to the slab/subfloor. If the floor ever bulges due to over expansion in high humidity, then get the humidity back to where it should be and it will automatically fall flat as the moisture from the air and flooring is subsequently reduced, alternatively it’s a simple re-cutting open the expansion gaps on the perimeter and the floor will drop flat back to normal with no replacement required, which is often the case of a pressure cupped floor on a fixed to slab/subfloor installation. For trouble free floors the humidity in the home should be kept between 40 – 65%, which is also the best humidity for humans to live in. Elastilon is tested and falls within the sound spec of IIC-62 & STC-54 so expect a quieter experience in the room and below. As there is no glue in the tongue & groove at all, this enables any repair work and individual board changes to take place if necessary.

- 1) Moistures in slab/subfloor to be tested dry to NWFA spec for the geographical region and season. The moisture contents of the testing should be recorded for future reference. Installation cannot continue if the slab/subfloors are damp, wet or out of spec.



**Moisture readings in general: -**  
 Wood calibrated meter: - 8-12%  
 Concrete calibrated meter: - 2 – 3%  
 Probe – up to 75% RH

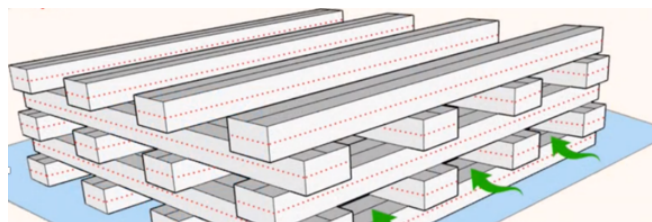
- 2) Slab/subfloor to be flat to the spec. of 1/8<sup>th</sup>” over a 10’ straight edge. If any wet repair work is done to flatten the subfloor then time must be given for it to dry out until the moistures are tested dry to spec before continuing.



- 3) Once it is ascertained that the area of install has suitable conditions for a wooden floor, which is: - dry & flat slabs/subfloors to spec, all wet work like wall/ceiling plaster or paint etc. completed and dry, all windows are glazed and the area fully closed/sealed off with doors and ready for living with the HVAC operating. The next step to a successful installation is acclimation. Solid hardwood and Engineered hardwood have very different acclimation methods.

**A) Engineered hardwood T&G**

Engineered hardwood should be acclimated according to the manufacturer’s requirement. If there is no specific directive, then it should be crossed stacked in its boxes in the room/s of installation out of the sun, for a minimum of 48 hours. (please check with the brand holder to confirm)



## B) Solid Wood Flooring

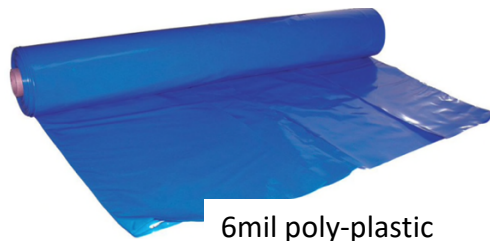
First of all, one must ascertain what air moisture one is acclimating too, NWFA has a chart for this, however, if the area is an established living area one can test the moisture on the door jams or any other wood product in the room of installation to get an idea of where the new solid hardwood flooring's moisture content should be at. The solid hardwood flooring must be acclimated to equal that. If the hardwood flooring is already testing to the same moisture as the existing door jams and within two percentage points (or wood moisture equivalent) of the slab/subfloor then one need not acclimate, however if the moisture content is higher or lower, acclimation will be necessary. If acclimation is necessary, then one needs to open cross sticker stack the flooring, board by board in the room of installation (out of the sun) with the HVAC operating until it reached the correct moisture content and once that is achieved installation can continue. This may be imperative in humid or coastal areas and depending on the seasons.



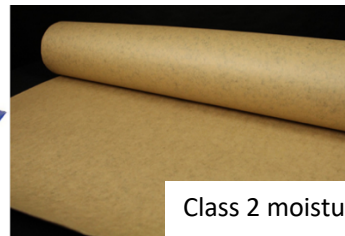
- 4) Vacuum floor free of all debris.



- 5) The moisture barriers can then be placed over the subfloor overlapped at the joints by at least 1' and must come up the walls to just below the top of the back of the baseboards. The moisture barriers must not be compromised at all, no holes. If one creates a hole or tear, ensure a well overlapped extra piece over at that point to seal.
- a) Over a concrete slab, on and below grade, a 6mil Poly Plastic is used.
  - b) Over a plywood or OSB subfloor, that has either a crawl space or basement below without a HVAC system then a class two moisture barrier is to be used.
  - c) If the subfloors are above grade whether concrete, plywood or OSB board and there is a room beneath with a working HVAC then the moisture barrier is optional to not necessary depending on circumstances like water buildup on balconies during rain which may penetrate.



6mil poly-plastic



Class 2 moisture barrier

- 6) The Elastilon can then be rolled out perpendicular to the direction of the new flooring then turned over with the sticky side facing up. The adjacent rows of the mats should butt up together but not overlapping.

**There are two ways to start the installation: -**

**Method 1)** Roll the Elastilon mat out and extend the mat by the width of two or three floorboards plus 6" up the wall side where the installation will begin. The protective foil is then pulled back and separated from the mat to the edge of floor at the base of the wall and the extra piece of mat is cut off which will now leave a flap on which installation can begin.



**Or**

**Method 2)** If one has kept the loose protective foil sheets that came off the Elastilon mats from previous installations, then one can use these as starter flaps. The protective foil should be cut into lengths of 3.5' and folded in half. The Elastilon is rolled out and cut to the edge of wall on both sides. This method virtually eliminates any wastage. Once the Elastilon rows are in position, peel back the protective foil (along the wall where the installation will begin) of the mat by 1 $\frac{3}{4}$ ' and place the loose starter flap with the fold against the wall side over the now exposed glue of the mat. Continue this on all Elastilon mats across the full starting wall along the line.



- 7) Now lay your first two or three rows of flooring leaving the 6" extra flap sticking out onto which to grab when ready to pull it from under the floorboard. Ensure a  $\frac{3}{4}$ " expansion gap between the floorboards and the walls all around the parameter by using spacers. Always lay with both tongues of the floorboard (the long and short edge) facing the direction that one is laying so if one needs to tap the board to fit tightly one taps on the tongue which will not damage the face of the floorboard. The flooring should always be laid in a random staggered formation creating no fixed pattern at all which at the same time pulls slightly natural bows in the wood to be straight and flat. The flooring off-cut at the end of each row becomes the next row's starting board. No "H" or "step" patterns should be formed in a strip or plank floor installation.

- 8) Once the first rows are in position, one can now blue tape these rows tightly together, making sure to stretch the tape somewhat before it makes contact to the surface of the flooring, this tape will hold your boards tightly in position as not to separate from each other. Once taped and all sides of the floorboards are tight against the adjacent boards, the foil flaps can be pulled out from under the floorboards while holding the flooring in position with your other or helpers hand. Do not lift the flaps when pulling, just slide or pull it out flat. If all the flooring is set tightly in position after the flaps are pulled out from under and you are happy, then one can stand on the floor to ensure good contact with the glue on the mat. It's vital to ensure the boards are tight prior to pulling the flaps out as the glue is extreme and the bond permanent.



- 9) As one proceeds, try not pull the flaps all the way out of the last installed row as it should be left under the last row of the floorboards, if you do pull the flap all the way out then simply tuck it back **under** the last laid floor board, then continue installing the floor using blue tape on the rows as you progress and then slide the flap out again and repeat. If one uses loose starter flaps at the start of your installation, they will pull all the way out after the first few rows and you will then be on the protective foil of the actual mat itself, which will now become the flap to continue laying on as the installation continues. (Ensure you keep all the protective foils that one has peeled off from the mat during the installation which can to be used as loose starter flaps for future installations). Continue laying, by taping and sliding the foil repetitively until the installation is complete. One can lay up to eight lines in sequence as the protective foil increases in length.

### Tips

- One can re-sand a sealed floor on Elastilon when required or an unfinished floor after installation before sealing.
- If any header joins on the floor open up at any time these can be closed by using a pull-bar or crowbar and wall block with quick shock pressure taps.
- Subfloors must be flat to spec too prevent any trampoline effect. However, some soft spots are permissible.
- Do not try lay hardwood T&G directly onto the sticky mat without a flap, flaps must be used at all times as when the floor is stuck to the mat it is stuck for life so ensure the flooring fits tightly first at all sides to the adjacent boards while on the protective foil flap and blue taped before pulling it out from under the floorboards.
- As the install continues the flaps will get longer, which means one can install 5 – 8 rows at a time, depending on width. blue tape the lines and pull or slide the flap out from the multiple rows but do not lift and pull.
- If you pull the flap all the way out from under the board, simply tuck it back under again ensuring not to get it trapped in the T&G between the floorboards of the incoming row as then it will be impossible to pull the flaps out.
- No one should stand on the floor when the flap is being pulled out as it will not pull out.
- When you get to the very last line one should glue the last cut board to the 2<sup>nd</sup> last full board with wood glue. At this point the flaps should be only under the last one or two boards for an easy out of the flap against the wall.
- If one needs to change the laying direction use a wooden slip tongue or spline with glue in both grooves where they meet and start the floor laying with loose starter flaps again.
- When one gets to the point where a roll of Elastilon ends and a new roll butts onto the previous roll end, at that join peel back the protective foil, use a loose starter flap and continue laying the floor.
- Any tear in the flap that is a nuisance, just cut the foil off right there and start again by peeling back the protective foil and start using a loose starter flap.
- Starter flaps can come in handy at various points or situations during an installation.
- The hardwood must be suitable for glue downs with no to small natural bows in the board if these bows create a bulging or tenting effect when the T&G's are fitted together it may not be suitable for a floating system, in general the tongue and groove of the staggered adjacent floorboards will sort out slight bows to keep the floor flat. Nails force excessive bows flat in a nail down installation but there are no nails on a glue or Elastilon down installation it could be a problem even though a rare one.
- Crooks in boards that do not pull together with the stretched blue tape, as there is no nail it may be necessary to strap tight before pulling the protective foil out from under the Elastilon. If these crooks are to sever it the flooring may then not be suitable for a glue or Elastilon installation. Good straight milling is best for glue down installations.
- Squeaking floors could be for two reasons: - 1. The subfloor is not flat 2. The tongue is loose fitting into the groove of the adjacent floorboard. The test is to put two floorboards together and hold it horizontal facing down to the ground the bottom floorboard should not fall out, also wiggle it around to ensure no loose movement in the T&G.
- No floor molding is necessary in the thresholds of the doorways just undercut the door jambs and let the floor flow throughout. Where there are no baseboards other floor molding are necessary, e.g. Shoe base, T-strips or end-caps.
- This is a floating floor so no heavy units to be on the floor, e.g. Kitchen islands, closets and heavy cabinets, piano's etc.
- If a floor over expands and bulges up during a very humid season no pressure cupping should occur and to rectify this take off the base boards in the width of the floor and re-cut open the expansion joint and the floor will drop flat with zero damage, If the floor expanded due to the HVAC going down then once the HVAC has been repaired run it and the floor should fall flat by itself as the humidity in the air gets back to normal.
- Floor moldings must not stop expansion, the fixing of these moldings must be through the T-leg of the molding to the subfloor or glued to the adjoining floor covering if tile. The wooden floor should be able to slide in and out from under the molding as it expands and contracts through the climatic changes. A floating floor must float with no hinderance.