## The product

Engineered Curv8 is made from real wood. The base of a multilayer Curv8 is made of Baltic birch plywood to achieve better dimensional stability in seasonally fluctuating ambient moisture conditions. Nevertheless every piece of Curv8 is selected by the grain pattern of the noble timber lamella and each board's appearance has naturallyoccurring variations in color, texture and grain pattern.

Each Curv8 floorboard is numbered and fits to its specific place within a module. Showroom samples and photographic reproductions can give an example of the product's appearance but they may not be representative of the full range of color, texture, size, shape and grain variations which can occur in the product itself. The images on Curv8 website and catalogues are provided for reference only and should not be used as the sole basis for choosing a particular style of flooring. Customers should view actual product prior to making purchase decision.

As the Curv8 collection is constantly being improved, product availability and specifications are subject to change without notice. Customers are advised to confirm all product specifications with their Curv8 dealer prior to purchase. Product selection may vary by area.

Curv8 comes in around 15/32" (12 mm.) total thickness with 1/8" (3 mm.) noble timber upper layer.

High quality Baltic birch plywood meeting the EN 636-2 and EN 314-2 requirements is used as base layer. Acceptable dimension tolerances are +/- 1/64"

Curv8 quality specification for oak: sapwood, dark knots and up to 3/64" filled cracks (1 mm.) and up to 25/32" filled knots (20 mm.) allowed

Being a natural product, hardwood rarely will be perfect. Industry standards of manufacture allow for grading deficiencies up to 5%.

Curv8 is delivered with timber moisture content of 8% ± 1%. In case the installation is planned to a climate zone with naturally different ambient moisture levels it has to be considered prior to purchase decision.

One package of Curv8 Module A contains 8 pcs. individually shaped boards, covering 11' 91/2" in length (3,6m.) and 2' 6 ½" in width (0,78m.) totalling 30 ft2 (2,8m2) Module A is the main module to consider for installing in your rooms. If your room width does not match the Module A width repeat well- too much would have to be scrapped off the last rows- our purchase guide will suggest to end the room with twice as narrow Module B to save on timber and money. Module B contains 4 pcs. individually shaped boards, 11'9/2" in length (3,6m.) and 1'3/4" in width (0,4m.) totalling 15 ft2 (1,4m2) (Fig.1)

The loosely packaged numbered boards (Fig.2) comprise an easy-to-install module(Fig.3)

## Job-site and subfloor conditions

Subfloor should be clean: subfloors should be scraped clean and free of debris. Clean sweep and vacuum all debris from the subfloor before the installation begins. Foreign matter on subfloors may cause situations of ledging or over-wood on all types of installations. It can also prevent a good adhesive bond on glue-down installations.

Flat: subfloors should be flat to within 3/16" in 10 feet or 1/8" in 6 feet radius. For installations using mechanical fasteners of 1½" and longer, the subfloor should be flat to within ¼" in 10 feet or 3/16" in 6 feet radius. Check the flatness using a straight edge, laser line or string line. Grind, scrape, sand or shim all high or low seams on plywood and composite type subfloor materials. Ensure all fasteners (screws, nails,

staples, etc.) securing the subfloor are set flat. On concrete subfloors grind all high areas and fill low areas using a quality leveling compound material.

Structurally sound: Subfloors should be structurally sound. Curv8 Engineered flooring can be installed over 3/4' plywood, OSB, existing wood floors or concrete. Curv8 does not accept any warranty claim on installations on ioists or I beams

Dry: subfloor should be dry. Check and document all moisture and temperature conditions prior to the start of the installation. Visually check the job-site for potential moisture problems. Look for water seepage around window areas. Check for mold or fungus build up on walls and around baseboard areas. Check subfloors for previous structural water damage. All of these visual checks help alert the installer to potential job-site problems that should be fixed before installing the flooring.

Concrete subfloor should be dry and MINIMUM of 30 days old. When new concrete subfloor has been made allow the screed to dry approximately 25 days for every inch in thickness (for example 75 days for a 3" screed) prior to considering wooden floor installation. Actual job-site conditions influence the result a great deal so every concrete subfloor should be tested with a calibrated concrete moisture metre. Maximum internal relative humidity of concrete should not exceed 75% as by ASTM-F710 upon looring installation. On floating installation on concrete subfloor use a 6 mil PE film with seams overlapping and sealed with tape. PE film will work as a moisture barrier. The edges of the PE film should be risen 2" and taped to each wall later to be covered by skirtings.

Plywood and composite type subfloor materials should bé checked using a calibrated moisture metre. Moisture readings may vary with different types of metres – ensure the moisture metre manufacturers operation instructions are followed correctly. Subfloor moisture readings should not exceed 10% and the moisture variation between the subfloor and the flooring should be 3% or less.

Job-site humidity should be controlled between 40% and 60% RH. Temperature reading should be between 59 °F and 77 °F previous to, during and after the installation

Curv8 engineered flooring should be acclimated for a week prior to installation in open packages at jobsite installation and usage conditions

Environmental Conditions: Wood is naturally hygroscopic material that can absorb and expel moisture. When wood absorbs moisture it will expand and when it expels moisture it will contract. Even though the cross grain multiply construction of Curv8 is more dimensionally stable than solid wood flooring, it can still expand and contract.

### Prior to installation

It is the installer's responsibility to ensure all of the following general installation conditions and instructions are met before the installation begins. It is also the installer's responsibility to ensure any and all specific installation instructions for including but not limited to glue down. glue down on concrete subfloor, screw down, floating, nstallation on radiant heat systems, etc. are followed follow the specific instructions for each application. When installed according to these instructions Curv8 engineered flooring is approved for use above and on grade.

Prior to installation verify the following conditions:

» All exterior walls, windows, and doors should be in place and the building closed up during the acclimation and installation period.

- » All moisture related material such as drywall, masonry, concrete should be completed and dry.
- » Basements and crawl spaces should be dry and well ventilated. Crawl spaces should be a minimum of 19", high from the ground to the bottom of the joist. Dirt floors in crawl spaces should be covered with a polyethylene film to reduce moisture migration from the dirt. Seams should overlap and be sealed with tape. Perimetre crawl space cross ventilation should equal to 1.5% of the corresponding floor. Vents should remain open year round.
- » Exterior grading should be complete and drains taking water away from the building structure with a minimum drop of 4" in 13'.
- » Gutter and down spouts should be in place, clean and extending away from the building.

## Inspect the flooring

Inspect all materials before installation. Ensure the flooring is the correct product and no piece is missing. Inspect the flooring for visible manufacturing defects and or damage. Do not install product with visible defects or damage – If necessary contact your local retailer, distributor, or Curv8 representative regarding any issues.

Additional information: Once these general instructions are met continue the installation using the instructions for your specific installation condition. These specific instructions can be found in the following documents.

- » Curv8 installation instructions
- » Radiant heat systems supplemental installation and handling Instructions

## Curv8 installation instructions

- » Prior to installation
- » Read and follow the Curv8 Installation Instructions
- » If installed over radiant heat, read and follow the radiant heat supplemental installation and handling
- » Humidity should be between 40% and 60% RH and temperature reading should be between 59 °F and 77 °F during installation and at any time thereon.

Subfloor should be flat to within 3/16" in 10 feet or 1/8" in 6 feet radius. For installations using mechanical fasteners of 1½" and longer, the subfloor should be flat to within ¼" in 10 feet or 3/16" in 6 feet radius.

- » Undercut wood trim, jambs and casings the thickness of the flooring and the adhesive.
- » Allow expansion space around all objects by either removing existing base moldings, or undercut the thickness of the flooring or allow ½" for expansion and plan to cover it with skirting. Inspect the flooring for defects and/or damage – Never install defective or damaged material!
- » On plywood, OSB and/or existing wood subfloors Test the subfloor and flooring for moisture content. Subfloor moisture readings should not exceed 10% and the moisture variation between the subfloor and the flooring should be 3% or less.
- » On concrete subfloor Look for the most damp areas and test there with concrete moisture metre. Maximum internal relative humidity of concrete should not exceed 75% upon flooring installation and maintenance period

### Recommended tools and accessories:

pencil, tape measure, broom and dust pan, safety glasses utility knife, shop vacuum (optional), hammer or rubber mallet, parquet tensioning strips, pry-bar or pull-bar, tapping block, scraper, dust mask, rags, wood flooring adhesive, adhesive remover, circular saw, jig saw. (Fig. 4)

In general installation is carried over Plywood, OSB and/ r existing wood subfloors. Note: Éngineered wood flooring can also be glued down over other types of subflooring materials (e.g. full spread vinyl, ceramic, vinyl tile, etc ) however, the qualification to install engineered wood flooring over these types of subfloor materials, the performance of the bond of the adhesive, and the warranty of the adhesive is determined by the adhesive manufacture Curv8 does not warrant the adhesive bond between the subfloor and the flooring in any glue down installation.

## Preparation and Layout

Determine the best starting point at a straight and even wall. If possible, use an outside wall for the starting point so you will minimize walking on top of freshly glued surface at later stage

If you change the direction of installation from the one considered during purchase decision your required amount of product might change.

Always turn board A1 with grooves at long side and short end towards the starting corner. We refer to it as top side and top left corner (Fig.5)

Open one package and assemble the first module as in (Fig.3) without gluing or nailing the boards. Figure (Fig.11) help in positioning the boards lengthwise within one

If the starting wall (top wall in illustrative Figures) is straight: To match the module with straight wall draw a line from the top left corner of board A1 to top right corner of board A2. The line is correct when it passes 1½" (38mm.) from the top right corner of board A1 and the top left corner of board A2. DO NOT CUT (Fig.7)

Mark 174" (45 cm.) from the left end of board A1. (Fig.8) Make the crosscut. Note: always copy the number of the board being cut to the unnumbered side as it will probably be used in later stages of installation.

Now make the straight long edge cut to the top of board A2 and to the longer section of board A1 as in (Fig.7).

Repeat the straight edge cut activity with boards A1 and A2 from the next carton(s) up to the length of the first row in the room. DO NOT Crosscut the second and proceeding A1 boards of the first row.

If the starting wall is not straight: Start from doing the crosscut of A1 board at 17/4" (45cm.) as in (Fig.8). Position the longer piece of cut A1 board correctly into the starting corner as close to the top wall not forgetting the 1/2 spacers between the cut end and left wall (Fig.6) Then lay down the first two board rows of I module row (Boards A1, A2, A3, A4) in an intended direction close to the wall (Fig.12). Laying the second row (boards A3 and A4) will help keep the first row stable and firmly linked. Now copy the curvature of wall with pencil and fixed spacer onto the flooring (Fig 9). This way you will get curved line with the wall's shape on the exact location on each board.

Cut the line with a jigsaw. As a result you will have the first row floorboards's edges copying the wall's curvature.

At the end of each row refer to (Fig.11) to decide how much to crosscut from the right of last board in the row. Use \\\\frac{1}{2}''

spacers along all walls (Fig.6)

Now you have the boards of the first row cut to match the wall and ready to install.

Position the cut boards as the first row correctly (Fig.12) starting from starting corner, not forgetting the ½" spacers between the boards and both walls (Fig.6). Lay the second row (boards A3 and A4) and third and fourth row of module row I. Second row can be easily laid as no cutting is needed. For third row's first board A5 and fourth row's first board A7 crosscuting is needed as in (Fig.10).

Having made the necessary cuts and having assembled the first module row without fixing it you can determine whether the boards' direction is parallel to wall and cuts have been made right. If everything is ok draw the line of the exact location of the last laid row to subfloor. Note: preferrably not wider than 4 rows at a time, for inexperienced layers 2 rows would be enough. This line enables you to apply floor laying glue exactly under the planned location of

Take the boards up and place them in a manner allowing to easily reconstruct previous layout.

#### Glue down installation instructions

Recommended Adhesives: Sikabond-T54 FC Parquet or Bona R844 or Equivalent.

Note: These are only recommended wood flooring adhesives. The warranty and performance of the adhesive is determined by the adhesive manufacturer. Curv8 does not warrant the performance of any adhesives.

Trowel spread a firm amount of adhesive inside the marked area onto the subfloor. An average of 2.2 lbs of glue is needed for 10 ft2 of flooring installation. Refer to glue producers' manual for details. Follow the adhesives manufactures recommendations for wet lay times before proceeding to the next step. Some adhesives can be laid into immediately and some require a wait time before the flooring can be installed.

When the glue is applied install the first module row at the exact location it was positioned at previous glueless laving.

Use parquet laying straps where small pressure is needed to keep the boards well aligned. Boards are well aligned when horizontal and vertical joints do not have any space between them. Note: Some flooring hoards may need to be tapped or pulled into place both sideways or lengthwise. Parguet laying straps, the tapping block or pull bar can be used for this procedure. When allowed by subfloor from timber and needed you can fix the rows with screws or nails to allow more convenient installation with less strap tensioning and better end result.

When the first (I) module row is installed you can proceed to the second (II) module row. Figure (Fig.11) helps in positioning the boards lengthwise in transition between module rows

Depending on your room length cutoff pieces from left and right end of each board row can and should be used in right and left ends respectively of the same module row or other module rows (Fig. 14). Installation Scenarios α β γ depending on room length.

 $\alpha$  (rooms with length in between 7'  $10\frac{1}{4}$ " -11'  $9\frac{1}{2}$ ", 19' 8"-23' 71/4", 31' 53/4"-35' 5", 43' 31/2"-47' 23/4"etc.) First left cut of each module row will finish the same module row.

 $\beta$  (rooms with length 11'  $\frac{9}{2}$ "-15'  $\frac{8}{4}$ ", 23'  $\frac{7}{4}$ "-27'  $\frac{6}{2}$ ", 35' 5"-39' 41/4", 47' 23/4"-51' 2" etc.) First left cut of I module row will finish II module row & right cut of I module row will start III module row & left cut of II module row will finish III module row.

γ (rooms with length, 15' 8/4"-19' 8", 27' 6/2"-31' 5/4". 39' 41/4"-43' 31/2", 51' 2"-55' 1/4" etc.) First left cut of I module row will finish III module row & right cut of I module row will start II module row & right cut of II module row will start III module row

IV module row will act as I, V as II and so on...

(Fig. 14) Will help select the appropriate installation

Repeat the activities in the logic described above. Note: For further module rows each hoard row's first hoards' cut will be different. (Fig. 11) will help you position the boards lengthwise and decide on the distance of the first crosscut. Only if the starting (top) wall is straight and at 90 o degrees with the left wall you can use measures at (Fig.10) to determine the first board cut positions in each board row in modules I, II and III.

If your room width does not match the Module A width repeat well- too much would have to be scrapped off the last rows finish the installation with Module B for the last 2 board rows (Fig. 15).

Never forget to use the \frac{1}{2}" spacers along all walls (Fig.6). After installation remove! all the ½" spacers that were used during installation along all walls.

Note: Most adhesives require the installer clean the adhesive off the flooring boards during the installation. Follow the adhesives manufactures recommendations for

Do not step on or walk on a freshly glued floor. Caution: Be careful not to move the installed flooring out of position.

### Glue down installation on concrete subfloors

Procedures for the installation of Curv8 engineered wood flooring over concrete are the same as above with the following exceptions:

Prior to Installation check subfloor moisture using a concrete moisture metre. Maximum internal relative humidity of concrete should not exceed 75% upon flooring installation and at any time thereon.

As fixing nails or screws can not be used effectively on concrete, parguet laying straps should be used to keep joints well aligned and thus the work may have to be carried on in smaller sections of up to 20 board rows for example. In this case tensioning can be proceeded after the glue of the previous section has been fully cured.

## Screw down installation

When using screws instead of gluedown apply screws into the tongue section of each floorboard at a 45 degree (Fig.13) angle at every 30 cm. Drill a hole and countersink for screwhead into the tongue section of the flooringboard unless you use special wood flooring self drilling and countersinking screws.

Parquet laying straps may be used to tension boards together until screws are applied.

# Floating Installation

ing floorboards together by tongue and groove seams without attaching them to subfloor).

On all floating installations use a 6 mil PE film with seams

overlapping and sealed with tape. PE film will work as a Note: Curv8 does not warrant the adhesive bond between moisture barrier. The edges of the PE film should be risen 2" and taped to each wall later to be covered by skirtings.

Apply a firm amount of PVA based flooring glue along the entire length of the groove (Fig. 9) of the first board of the second board row and reinstall the A1, A2, A3 boards of the first and second row the same way the layout was properly aligned. Repeat the action until the end of the first two rows are installed and proceed to 3rd row and check again for proper positioning. The amount of the glue applied is right when there is constant glue line in groove and no spill up or down occurs after boards are pushed together. Follow the adhesives manufactures recommendations for details and curing times before proceeding to the next step.

Note: Most adhesives require the installer clean the adhesive immediately off the flooring boards during the installation. Follow the adhesives manufactures recommendations for this procedure.

Repeat the action logic until the end of room. In case of wide rooms with more than 15-20 rows of floorboards in width let the glue cure after each 20 rows before proceeding. Use parquet laying straps where small pressure is needed to keep the boards well aligned. Boards are well aligned when horizontal and vertical joints do not have any spacing in hetween.

Do not step on or walk on a freshly glued floor. Be careful not to move the installed flooring out of position.

Note: When floating installation method has been chosen screws or nails can not be used to fix boards to subfloor.

In large rooms with more than 27' in width install 1/2" expansion joint (Fig18) in the middle of the room or after every 27' in width and in long rooms after every 70' in length. The expansion joint can be covered with mouldings or filled with soft elastic matter like Sikaflex Marine sealants

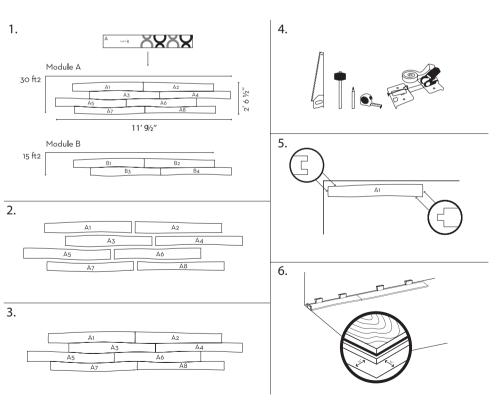
Complete the installation with maintenance procedures depending on the finishing of the floor. Unfinished floor needs laquering or oiling or oilwaxing upon preference. Refer to finishing material producers manual. Oiled as well as Oilwaxed prefinished floors require the

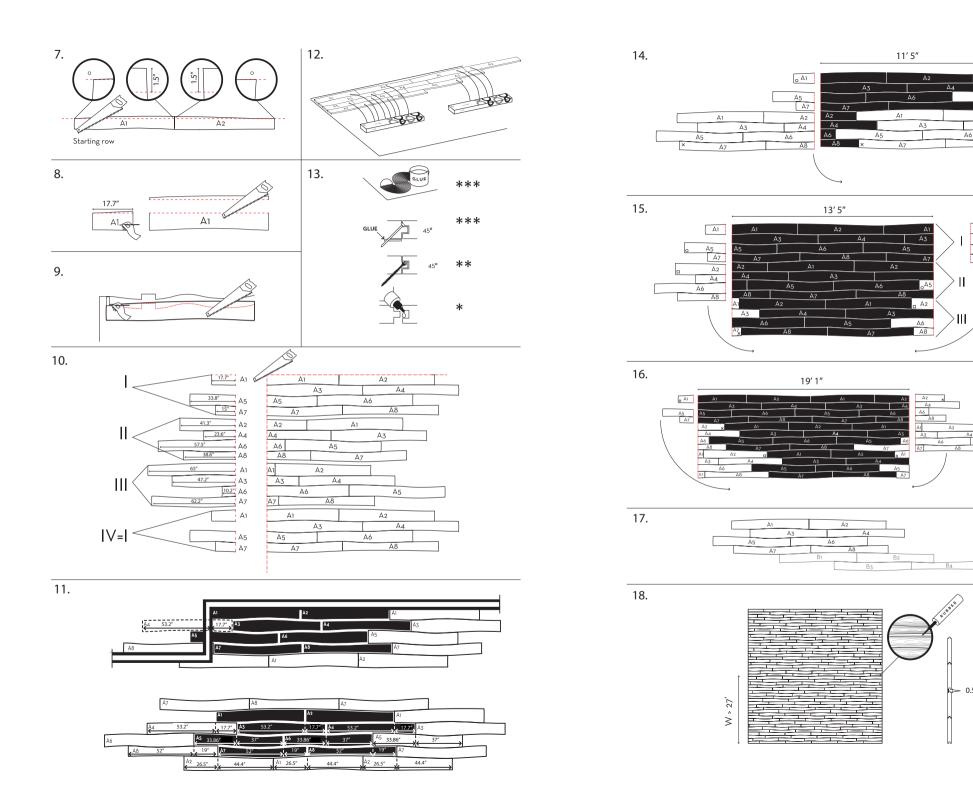
installation procedures to be finished with first coat of maintenance oiling Install new moldings to cover the ½" spacers expansion

gap between flooring and walls.

Note: istallation of hardwood floors is generally an undertaking of experienced specialist. This installation quide is not a training manual to become a floor installation specialist neither can it pass the knowledge aguired by experience. If you look for a perfect result consider the installation to be undertaken by experienced specialist. However if you are DIY oriented handyman and take responsibility for your work then this guide should lead you through installation process.

For more detailed information refer to www.bolefloor.com/curv8







### Radiant heat warranty information:

When these instructions are followed, Curv8 engineered flooring is fully warranted over radiant heat. The warranty will be void if any of the following installation instructions are not

Installation Instructions for engineered flooring over radiant heat systems:

- » Verify the radiant heat system is hydronic (water) type. Curv8 flooring is not warranted over electric floor heat
- » Verify the radiant heat system is designed for wood flooring and has an outside temperature sensor and in floor direct contact temperature sensor(s).
- » Verify the radiant heat system controller is designed for wood flooring and has a temperature limit that will not allow the surface temperature of the subfloor to exceed 80 °F at any time.
- » Conduct and document concrete moisture testing. Maximum internal relative humidity of concrete should not exceed 75% upon flooring installation. Istalling wooden flooring on a not yet dried concrete flooring is a common fault.
- » Relative humidity of the jobsite must be maintained between 40% and 60%. Local wetted spots under windows, tubes etc. will void the warranty. Failure to maintain proper humidity levels can result in excessive moisture as well as dryness and will void all warranties.
- » Radiant Heat System must be on and operating at 2/3 maximum output a minimum of 10 days prior to the start of the installation. This will gradually raise the For more detailed information refer to www.bolefloor.com/curv8

temperature of the radiant heat system to the desired temperature.

- » Installation premises must be well ventilated and under normal usage: temperature and humidity conditions as stated in this guide. Excessive heat, rapid heating, and/ or failure to maintain humidity levels between 40% and 60% may cause cracking, cupping and other forms of failure and will void the warranty.
- » Temperature in the installation area must be controlled between 59 °F and 77 °F at all times.
- » No change in floor temperature shall be faster than 2/3 F / 24 hrs. Especially dangerous are situations when in autumn after no- heating season radiant heating is turned on into full power and flooring will undergo intensive drying and heatup that may bring along permanent damages. Temperature has to be risen gradually and slowly.
- » Maximum surface temperature of the wood flooring can never exceed 80  $^{\circ}\text{F}$  .
- » Glue down method is approved over concrete subfloors with radiant heat.
- All installation methods are approved over plywood, OSB or existing wood subfloors with radiant heat.

Once these instructions are complete continue the installation by following the instructions for your specific installation type found in the following documents.

- » Curv8 engineered flooring general handling and installation instructions
- » Glue down installation instructions

In case of claims, questions contact Curv8 customer service department

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Installation and handling instructions

curv8