

Havwoods Material Guide: Elegante Veneers

These guidelines are designed to complement the current British Standard or the relevant standards in the country of installation.

Safety must be paramount on every installation. All electrical equipment must be PAT tested and labelled and all cutting tools such as jigsaws, circular and bench saws must have guards fitted and cutting must be carried out on a suitable bench. You must also wear suitable work wear and remove or make safe any loose items such as jewellery. Safety is your responsibility.

The following topics are covered by this document, for further information or for advice on any subject not covered here, please contact Havwoods:

Environmental Conditions

Material Description + Tolerances

Material Usage & Installation

Finishing of Veneers After Installation

HVAC Heating/Climate Control

The Elegante Veneer Product consists of a decorative design veneer bonded to a 1mm non-woven fabric backing. The Veneer thickness varies by design – please refer to the Technical Data Sheet (TDS) of the relevant product for specific details.

Please Note: Some Elegante Veneer designs are fully flexible and able to be curved to tight radiuses and others are more rigid and only partially flexible. Please consult with the Havwoods team to ensure that you have selected the correct material for use on your project.





Please speak to a member of the Havwoods team if your project has specific requirements for fire ratings or the installation will be in a humid environment such as domestic bathrooms or commercial leisure facilities.

N.B: The final responsibility lies with the installer. It is the duty of the installer to inspect materials prior to installation and notify Havwoods of any potential material defects prior to installation. Installed materials are deemed to have been accepted.

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ENVIRONMENTAL CONDITIONS Version 1

The building must be watertight with all windows and doors fitted and all wet trades complete before taking delivery of materials and before any timber finish installation can take place.

Always check the ambient room temperature and humidity, which should be maintained at a constant level <u>above 18°C (64°F)</u> with a relative humidity between <u>30% - 50%RH</u> prior to, during and for the whole life of the panels. Try to avoid extremes of low or high temperatures as this will negatively affect the stability of the panels. <u>Extremes of environmental change can result in expansion/contraction of up to 1.5mm per metre.</u>

For the storage of Elegante Veneers, the environment should be at an optimal 20°C and between 40-50%RH. Store away from sunlight and in original packaging.

Acclimatise the veneers in the conditions they will be used for 48 hours prior to usage. The veneers should be maintained in their original packaging in this period. Only remove the materials from their packaging just before installation. The wood should be stored horizontally and out of direct sunlight, away from walls and radiators and on rigid boards over battens fully supporting the panels to fully support the sheets and prevent a build of heat on the bottom boards.

Acclimatising is used to balance the wood material with the environment in the installation area.

Keep the room temperature constant by using the heating set at minimum 18°C (59°F) or if there are problems with the permanent heating other forms of heating such as convector heaters can be used.

Do not use gas-type heaters as these will generate extra moisture in the air.

Infra-red type heaters do not generally warm the fabric of the room or the wood, they tend to only warm the person or item close to the heater.

Low humidity can cause the wood to shrink and high levels can cause expansion. Common causes of low humidity are using the heating at too high temperature, open fires and wood burners. High humidity is commonly caused by poor ventilation.

We recommend using a Digital Gauge to monitor the humidity and temperature level that can be easily adjusted by either placing moisture in the room (plants that are watered regularly or receptacles of water) or ventilating the room to reduce high levels of humidity. A humidifier/de-humidifier can also be used to control the atmosphere.

As a general rule, rooms/areas should be adequately ventilated to prevent a build of moisture in the environment. Care must also be given to rooms that are only heated when in use and with the heating switched fully off at other times. This can cause a build-up of humidity if the room is closed and not ventilated immediately after usage. The build of humidity / moisture will generally increase the moisture level of the wood. The next time the room is used, the heating can dry out the moisture in the surface of the wood, causing cupping.

Wood will naturally change in size during seasonal variations in temperature and humidity.

During summer the humidity is generally at its highest level, hence the wood joins should be reasonably tight together. During the winter, when heating is commonly used, the humidity levels are generally lower and can produce small gaps between the joins. This occurrence is not a manufacturing or installation fault.

MATERIAL DESCRIPTION + TOLERANCES

Havwoods Elegante Veneer is an unfinished veneered sheet bonded to a 1mm non-woven fabric backing layer and shaped in various decorative designs.

Detailed Technical Data Sheets are available for each product, the below is an overview of significant product features:

Elegante Veneer Dimensions:

Dimension	Measurement	Tolerance
Height	3130mm (10') [123.2"]	±2mm [±5/64"]
Width	1220mm (4') [48.0"]	±2mm [±5/64"]
Thickness	Specific to product	Specific to product
Deviation of Squareness	-	±2mm/m
Moisture Content	-	5% - 9%
Weight	Specific to product	

MATERIAL USAGE

Elegante Veneer sheets are ideal for covering most common wood substrates e.g. Plywood, MDF, Chipboard as well as fixing to plasterboard and smooth, dry surfaces in general.

Always carry Elegante Veneer sheets between 2 people and be aware of sharp edges.

Elegante Veneers should be bonded to the core material manually. Mechanical press veneering may result in uneven adhesion due to the textured surface of the veneer resulting in uneven pressure application.

<u>Manual application to a wooden substrate</u> is generally achieved using a contact adhesive. It is recommended to use the core material as a template and trim the veneer to size before bonding. Ensure all surfaces are free of contaminants such as grit and oils/grease before bonding. Use a suitable <u>contact adhesive</u> applied to the face of the core material and the back of the Elegante veneer and allow the required drying time before bonding together. Apply consistent and even pressure over the veneer face to achieve adequate adhesion with the substrate.

Manual application to plasterboard/drywall can be achieved with a suitable contact adhesive or a synthetic resin-based adhesive suitable for heavy wall coverings and wall panels. Substrates should be sound and free from all surface contaminates. Any contamination should be cleaned from the surface using appropriate methods and allowed to dry. Dusty or friable surfaces to be stabilised using a stabilising solution of Unibond PVA diluted 1:10 with water or Marldon MXS120. Both stabilisers to be applied with brush or roller and allowed to dry. Always follow the adhesive manufacturer's guidance.

When applying to curved surfaces, form the base structure from plywood and use a contact adhesive as described above, use of a high tack tape or headless pins may be necessary to help secure the veneer to the surface during adhesive curing. <u>Always ensure</u> you have selected the correct veneer to provide the necessary flexibility for your project because the flexibility of the material varies between products.

FINISHING OF VENEERS AFTER INSTALLATION

Elegante veneers are supplied with a sanded surface to allow ease of finish application. Some light sanding may be required to remove any surface residues or contamination from the installation process.

Havwoods recommend that Elegante Veneers are finished in an acrylic-PU lacquer after installation to protect the timber and make cleaning and maintenance straightforward. It is normally recommended to apply multiple coats of acrylic-PU lacquers with a light abrasion after the first coat(s) prior to the final coat to remove any raised grain.

Follow the maintenance instructions of the surface finish manufacturer. Always use pH neutral cleaning solutions for sealed wood surfaces and avoid excessive use of water when cleaning Elegante Veneer surfaces.

Other finishing options include oils and hard-wax oils - please be aware that oil-based finishes will often darken the timber due to their wood-penetrating properties. Oiled surface cleaning requirements vary.

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COMMISSIONING & USAGE of HEATING, VENTILATION and AIR CONDITIONING (HVAC) SYSTEMS

This relates specifically to the transition from construction-phase environmental conditions to normal operating conditions where Havwoods timber products are to be installed.

The concern relating to this project type is detailed in the expected Equilibrium Moisture Content (EMC) in the timber material as dictated by its environment:

Construction-Phase Environment Example

Temperature: 15°C

Ambient Relative Humidity (RH): 60%

EMC: 11.14%

Operational Environment Example

Temperature: 21°C Ambient RH: 35% EMC: 6.95%

Under the example transition above, the timber will lose over 4% of moisture content once the environmental control system is brought into operation. This equates to ~1% of dimensional contraction (typical 0.22% dimensional change per 1% change in EMC). If this transition is made too quickly, the timber will be subjected to a high level of stress and this can result in surface cracking, gaps between timber elements, distortion of timber elements and other undesired actions.

Because of this, there is a requirement to bring the heating/ac system into operation slowly in order to allow staged adaptation of the timber to the environment. This should be done as follows:

- Environmental conditions measured and recorded, and the temperature of the system set to that which is present in the environment at that time.
- The system should be allowed to operate at this temperature for at least 24 hours. RH should be monitored and recorded in the environment in this time.
- No more than 2°C increase in the system per 24-hour period with recordings to be made of RH.
- System brought up to operating temperature with each stage recorded and documented over several days with RH to also be recorded.
- An environmental measure should be in place (such as a LogTag temperature and humidity device) to monitor RH and provide an alert when RH levels fall below 30% so that plants or other moisture sources may be introduced.

The optimum performance of the timber will remain between 30-50% RH and between 18-30°C due to the 5%-9% moisture content at the time of manufacture. The above process is designed to prevent failure of the material under sudden exposure to altered environmental conditions.

Requirements for temporary heating (during the installation at construction phase) in colder months to be operational 24 hours a day remain. All efforts should be made to achieve temperatures of 18°C at the time of Elegante Veneer installation and until the project completion.

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23/06/2023

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