

# Zenolite<sup>®</sup> 4mm Pre-Cut panel lamination.

Zenolite 4mm can be integrated into many vertical surfaces for furniture and joinery applications.

## Applications

The following pre cut panel lamination procedure is suitable for cabinet doors, drawer fronts and general domestic and commercial furniture applications up to a maximum size of 1000mm in any direction.

For applications requiring larger panels designers should adopt a split panel approach. Larger panels can also be achieved by specialist lamination providers using approved adhesives and techniques.

## Doors and panels

Zenolite laminated to MDF is for interior applications only. A Zenolite laminated panel may react to changes in humidity and temperature. A curvature of up to 1.5 mm / 1000 mm may occur in some extreme environmental conditions. Excessive curvature can be minimized by avoiding long narrow panels and by ensuring adequate hinging and fixing support is provided.

## Specifications

Maximum laminated panel size using this method is 1000mm in any direction. Adequate fixing should be provided at no greater than 350mm centres. Doors under 600mm should have 2 hinges. Doors from 600mm to 1000mm should have 3 hinges. We recommend an air gap of 6mm adjacent to ovens or other heat sources.

Laminated panel mass is 18kg/m<sup>2</sup>.

## Materials for pre cut lamination

**Zenolite** – all 4 mm colours other than Carbon are suitable for lamination using this method.

**Substrate** – select grade 16mm moisture resistant medium density fibre board.

**Backing panel** – min 0.6mm high pressure laminate cabinet liner is required on the reverse side of the MDF to balance the zenolite face panel.

**Adhesive** – Water based acrylic emulsion lamination adhesive such as Bostik AV56 Clear is suitable for pre cut panel lamination. Application rate of 160-180grams per metre<sup>2</sup>.

**Edge banding** – Use ABS or Acrylic edge banding only secured with clear or white EVA hot melt adhesives.

Surteco can provide Zenolite colour matched high gloss 1.0mm thick edge bands to suit. Surteco 3D acrylic range is also suitable where a contrast effect is desired.



### NOTE

Large scale lamination projects should be undertaken by specialist lamination providers.



### CAUTION

Correct handling and safety procedures should be followed at all times.

## Lamination Procedure

Lamination should only be completed from 10°C to 30°C ambient temperature. Zenolite, MDF and the liner should be stored under the same conditions to normalise for at least 12 hours prior to lamination.



1. Using a suitable panel saw, cut Zenolite, mdf and backing panel around 5mm oversize.



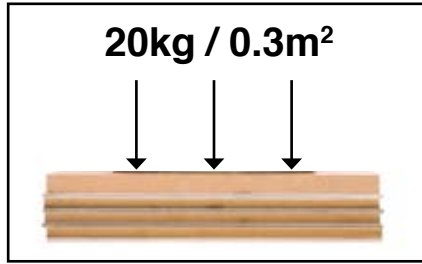
2. Remove protective film from the rear surface of Zenolite.



3. Mix adhesive as directed by the manufacturer.



4. Apply adhesive using roller or 2mm trowel. Apply to Zenolite first & liner second due to varying drying times on each substrate.



5. Laminate the 3 materials and press for a minimum of 4 hours with approximately 20kg/0.3m<sup>2</sup> spread evenly across the panels. Overnight pressing is ideal.



6. Trim laminated panels to within 2-3mm of final size.



7. Machine finish edge to final size using a planer or router.

## Zenolite Edge Finishing

For doors and other exposed edge panels we recommend ABS or Acrylic edge banding, Aluminium capping profiles or Edge polishing. Zenolite panels can be finished with a polished edge and then laminated to a pre-finished and edged backing board using the same lamination methods.

Hand polishing, specialist diamond polishing equipment or diamond faced router cutters are recommended to achieve a high gloss finish on all exposed Zenolite edges.

Backing boards should be prepared no earlier than 24 hours before lamination to avoid bowing caused by changes in environmental conditions.

## Edge Banding



1. Apply edge band with Zenolite face down using suitable machine and clear or white coloured EVA based hot melt adhesive. Use mineral turpentine sparingly to clean off any excess adhesive.



2. Scrape off all excess adhesive immediately after edging.



3. Carefully file or sand edge band to a flush finish.

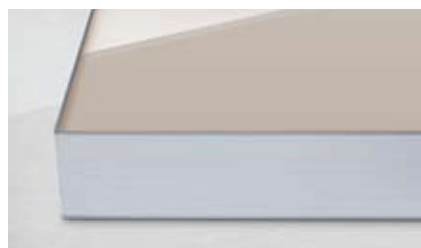


### WARNING

Do not use - PVC edge banding, solvent based adhesives or aggressive solvent based cleaners.



Arised edge with contrasting edge banding.



Flush edge with contrasting colour matched edge banding.



Exposed flat edge with aluminium edge banding.

Statements and recommendations provided by EGR, either written or verbal are based on our experience gained to date. Laminated panel performance may vary due to application methods, substrate variations and environmental conditions. Users should consult the adhesive and substrate suppliers technical data and complete their own tests to determine the suitability of our product for each application. No liability may be derived from these statements nor from our free technical advice.