TriSound S3D by Sauerland Acoustic Blank Construction Method Statement

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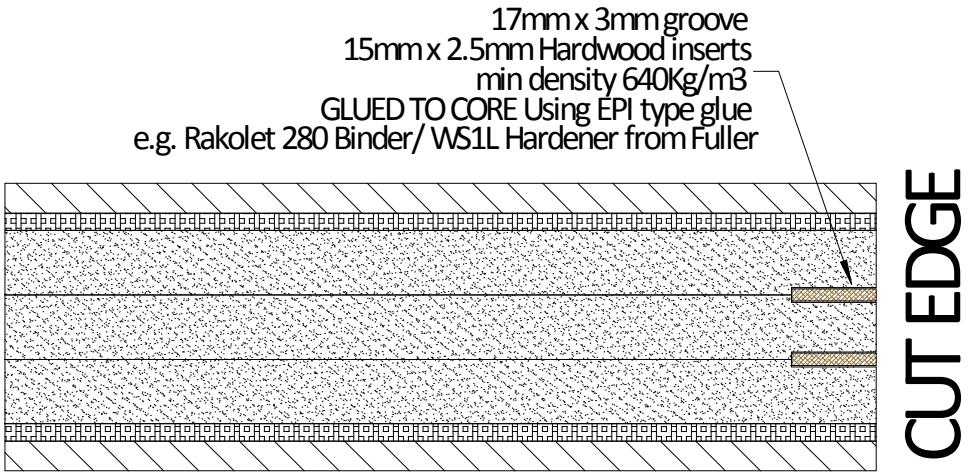
Materials

- TriSound S3D by Sauerland 45mm thick 3-Ply acoustic core with Cork outer layers (nom 2000x800mm)
- Sapele (min density 630kg/m^3 at 12% mc) 45x38mm section perimeter timber
- 2no 6mm High Density MDF (min density 850kg/m^3 at 12% mc) sheets for substrates
- Min 20x12mm steel staples
- PVA D3 or UF adhesive (and EPI adhesive if core is to be reduced in width)
- Sapele (min density 630Kg/m^3 at 12% mc) 15x2.5mm IF core is to be reduced in width

Method

1. Cut Core to internal size:
    a. Core Height: Blank Height – 152mm (see section ii below)
    b. Core Width: Blank Width – 152mm (see section iii below)
    c. Where Fire performance is required the following conditions must be adhered to:
        i. the core must only be used in the "portrait" orientation
        ii. When cutting the core to height it is imperative to ensure that the required amount is ONLY trimmed from one end of the core. The cut end MUST be located at the bottom of the leaf. If the top (non-cut) end requires squaring-up this can be achieved by trimming a maximum of 6mm before the remainder is trimmed from the opposite end.
        iii. When cutting the core to width it is imperative to ensure that the required amount is ONLY trimmed from one edge of the core. Where greater than 6mm is removed from the edge, two grooves 17mm deep by 3mm wide MUST be cut along the CUT edge positioned along the joint between core layers (see diagram below). The grooves are to be filled with 15mm x 2.5mm Sapele inserts glued to the cores using an EPI type glue (e.g. Rakolet280 Binder/WS1L hardener from Fuller).



If the non-cut edge requires squaring-up this can be achieved by trimming a maximum of 6mm before the remainder is trimmed from the opposite edge as above.

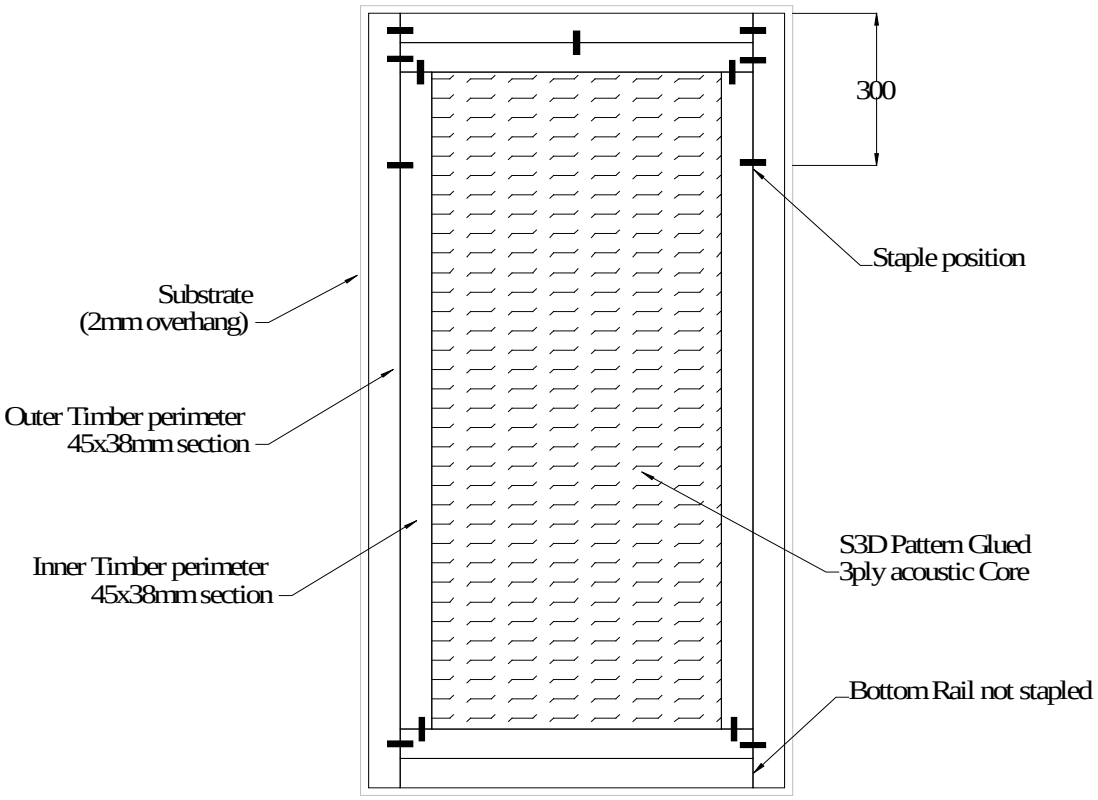
iv. The core is normally supplied at 2000x800mm dimensions. If a wider core size is required this must be custom-manufactured.

v. In any event the overall leaf sizes should be limited to the permissible envelope provided with the fire performance evidence.

2. Cut Perimeter Timber:
   a. Outer stiles: Blank Height
   b. Inner stiles: Blank Height – 152mm
   c. All rails: Blank Width – 76mm

3. Cut substrate
   (2no 6mm substrates):
   a. Height: Blank Height + 4mm
   b. Width: Blank Width + 4mm

4. Assemble Perimeter using steel staples from both faces, in locations shown below, ensuring tight fit of timber at joints and where butted up. Gaps of > 0.5mm are unacceptable. Note that the bottom rail is not stapled.



5. Coat one substrate with PVA-D3 or UF adhesive. Place (adhesive side up) on pressing platform
6. Place perimeter onto substrate with 2mm overlap all round
7. Place the bottom rail ensuring tight fit

8. Place cut-to-size core material into the perimeter ensuring tight fit and that the top end of the core (see section 1-ii) is at the top end of the leaf
9. Coat second substrate with PVA-D3 or UF adhesive place on top of core/perimeter with 2mm overhang all round.
10. Press in a hot press until adhesive is cured to the handling stage. Suggested time in a hot press would normally be around 20-30 minutes but the time required will vary due to press temperature and other conditions. It is possible to use a cold press although pressing time to reach the handling stage will be significantly increased, e.g. in a 21°C environment the handling stage would normally be reached in around 75 minutes, although again this will vary due to conditions. For more information see the adhesive manufacturers Technical Data Sheet
11. Once the handling stage of curing is reached the blank can be removed from the press but handling should be kept to a minimum until full cure has been achieved. Time required to achieve full cure varies with temperature and other conditions but as a guide a blank stored in normal conditions should achieve full cure after around 24 hours.
12. Mark "Top" on the top perimeter frame.
13. Once full cure has been reached the blank can be trimmed and lipped.
14. The blank can now be veneered/trimmed/primed/painted according to requirements. See the relevant Technical Manual for more information regarding use of the blank.