**FOAM PROPERTIES**

<table>
<thead>
<tr>
<th>Foam Property</th>
<th>Test</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extruded polystyrene</td>
<td>UNI EN 12667:2002</td>
<td>35kg/m³</td>
</tr>
<tr>
<td>foam density</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Thermal conductance</td>
<td>UNI EN 12667:2002</td>
<td>0.758 + 0.014/-0.010 w/(m².K)</td>
</tr>
<tr>
<td>Thermal resistance</td>
<td>UNI EN 12667:2002</td>
<td>1.32 + 0.02/-0.025 m².K/W</td>
</tr>
<tr>
<td>Thermal conductivity</td>
<td>UNI EN 12667:2002</td>
<td>0.0376 +/- 0.0005 W/(m.K)</td>
</tr>
</tbody>
</table>

**BENEFITS:**
- Fully waterproof
- Heat insulating
- Holds hanging weight up to 60kg
- Light weight, easy to fix
- For walls and floors

**SUITABLE FOR:**
- Waterproofing wet rooms and showers
- All types of tiles
- Use with underfloor heating as a de-coupling and thermal insulation layer
- Use as a partition layer

**ORBRY BOARD THICKNESS & LENGTHS:**

<table>
<thead>
<tr>
<th>Thickness</th>
<th>OB12 1220mm</th>
<th>OB24 2440mm</th>
</tr>
</thead>
<tbody>
<tr>
<td>6mm</td>
<td>✓</td>
<td></td>
</tr>
<tr>
<td>10mm</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>12.5mm</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>20mm</td>
<td>✓</td>
<td>✓</td>
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FIXING ORBRY BOARDS: SOLID WALLS

PREPARATION

EXISTING PLASTER
Good quality sound plaster can only bear a maximum weight of 20kg/m². This is insufficient to bear the weight of Orbry™ Board and tiles when fixed. Therefore, either remove all the plaster to return to an underlying sound load-bearing surface, or mechanically fix (see mechanical fixing section) through the plaster into the underlying sound load-bearing surface using Orbry™ Spanker Dowels. The Orbry™ Spanker Dowels must penetrate the load bearing surface by a minimum of 35mm.

EXISTING TILED SURFACES
Existing tiled surfaces need to be mechanically fixed (see mechanical fixing section) through the tile and back to an underlying sound load-bearing surface using Orbry™ Spanker Dowels. The Orbry™ Spanker Dowels must penetrate the load bearing surface by a minimum of 35mm. Alternatively, remove the tiles and adhesive and return to the underlying sound load-bearing surface. All wall surfaces must be load-bearing, sound, clean, and free from dust and other contaminants including paint. Walls must be flat and even.

FIXING WITH TILE ADHESIVE TO BRICK, BLOCK OR CONCRETE WALLS

1. Apply a suitable flexible cement based tile adhesive with a trowel with a minimum notch of 8 x 8mm. Notches of up to 20 x 20mm may be used if the wall has minor irregularities.
2. Fix direct to the wall and adjust to ensure boards are perpendicular (see Fig.1).
3. Butt joint adjacent boards.

6mm boards or thicker may be used.

MECHANICAL FIXING

1. Offer the board to the wall, and using a 10mm drill bit, drill through the board to a depth equal to the length of the Orbry™ Spanker Dowel that you are using. Insert the Orbry™ Spanker Dowel and tap in the securing pin until board is held in place. (see Fig.2)
2. Drill additional holes every 300mm and loose fit with Orbry Spanker Dowels. Fit adjacent boards using the same method and check that they are level.
3. Hammer in all fixing pins until the Orbry™ Spanker Dowels are all securely fixed. Do not over hammer the dowels or they will crush the boards.

10mm boards and thicker may be used.

4. Allow the adhesive to dry, then drill through the existing holes to the depth of the Orbry™ Spanker Dowel, insert the dowel and fixing pin and hammer in. The Orbry™ Spanker Dowels must penetrate the load bearing surface by a minimum of 35mm.
5. When fixing to dry areas, apply Orbry™ Self Adhesive Scrim Tape to all horizontal and vertical joints using a thin layer of cement based tile adhesive and a float trowel. (see Fig.4)

WATERPROOFING JOINTS FOR WET AREAS

All Orbry™ Boards are fully waterproof and can be used to create a waterproof system, so they are excellent for wet rooms and showers. When waterproofing a wet area, it is important to waterproof all joints.

Tape all joints using one of the following waterproof tape systems:
1. For speed of application, use Orbry™ Self Adhesive Waterproof Tape, available in 10m rolls.
2. Orbry™ Waterproof Tape, available in 5m and 10m rolls, and Orbry™ Waterproof Corners fixed with Orbry™ Waterproof Sealing Compound.

TILING

Orbry™ Boards are the ideal surfaces to tile on. They bond with all proprietary tile adhesives, so all you need to do is choose the correct adhesive for the type of tile you are fixing. If in doubt seek further advice from the adhesive and grout manufacturer. For a wet area installation you need to achieve a solid bed of adhesive, ensuring no voids are left beneath the tiles. The maximum combined weight of tiles, adhesive and grout that the boards can hold is 60kg per square metre (fixed to the wall) which is more than enough for all tile and stone finishes.

PLASTERING AND PAINTING

Follow the plaster manufacturers’ recommendations for priming a cement based surface and apply a skim coat. Once completely dry the plaster can be decorated.

CUTTING AND HANDLING

Orbry™ Boards can be cut easily with a utility knife. Even the largest boards weigh less than 10kg and can be handled and fixed by one person. The cut edge of a board can be rough, so suitable gloves should be worn.
PARTS REQUIRED

ORBRY™ WATERPROOF INTERNAL & EXTERNAL CORNER

ORBRY™ WATERPROOF TAPE

ORBRY™ WATERPROOF SEALING COMPOUND

SILICONE SEALANT

ORBRY™ SELF ADHESIVE SCRIM TAPE

ORBRY™ SPANKER DOWELS

ORBRY™ SELF ADHESIVE WATERPROOF TAPE

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