

**EchoPanel® Tile**

**EchoPanel® Code**

**Application Guide**

Updated February 2010

# What is EchoPanel®?

## Please Read This Application Guide before Beginning Installation

This application guide is presented in good faith to help in the use of **EchoPanel®** products. Woven Image accepts no responsibility for installation actions taken or not taken. This guide is not intended as an all encompassing guide, your knowledge as an experienced tradesperson needs to be applied. This application guide contains only recommendations; if you have any questions about installation techniques please contact your distributor or Woven Image sales representative.

**EchoPanel®** Tile and **EchoPanel®** Code is ideal to provide a practical and felt like design solution for any wall situation. They provide not only a colourful felt like finish but also have strong acoustic benefits as well.

## Environmental Thinking

**EchoPanel®** is made from 100% PET (Polyethylene Terephthalate) which, depending on colour contains up to 60% post consumer content. This is recyclable. **EchoPanel®** is centred on the concept of dematerialisation. Woven Image offers a full stewardship program and will take back product at the end of its life as well as recycle uncontaminated **EchoPanel®** off cuts.

## Cost/Savings

**EchoPanel®** is a finished surface in itself therefore it reduces costs in labour and materials in many applications, including wall panelling. Many workstations and wall panel solutions are currently clad using a substrate such as MDF board, which is in turn wrapped in foam backed fabric or complicated again to include pin-able materials. The process is repeated again on the reverse side. This results in time consuming and costly construction, but an overall workstation size that needs to be unnecessarily thick to cater for the selected finishes. Wall panels are similarly costly and bulky in their production, as substrates need to be wrapped in multiple layers and fixed in methods capable of holding their weight.

## Non Hazardous Materials

**EchoPanel®** only emits a total VOC emission rate of <0.02mg/m<sup>2</sup>/hr (over 7days). When used as a vertical screen divider in conjunction with a formaldehyde-free desk system it is a solution to a safe working environment.

## Performance

**Acoustics:** **EchoPanel®** Tile and **EchoPanel®** Code meet the acoustic demands of today's open plan office; they have been tested to AS ISO 354-2006. It received an NRC (noise reduction co-efficient) result of 0.7 (with a 50mm air gap), 0.45 (with a 20mm air gap) and .25 (with no air gap). This is a better than average absorption of sound particularly useful in open and reverberating spaces evident in today's office environments. The NRC is a number index for rating how absorptive a material is. It means that 45% of sound that comes into contact with it is absorbed and 55% of the sound is reflected back into the space (with a 20mm air gap), unlike many hard plastics or metals that would have little absorption.

**Fire:** **EchoPanel®** Tile and **EchoPanel®** Code has been tested to the Fire Test AS 3837 with Classification 3 result. Technical results can be obtained from the specification sheet on the Woven Image website at [www.wovenimage.com](http://www.wovenimage.com)

## Ordering

**EchoPanel®** Tile and **EchoPanel®** Code is ordered by the pack. **EchoPanel®** Tile and **EchoPanel®** is packed in a cardboard box with 10 tiles per pack.

**EchoPanel®** Tile is a nominal 500mm x 500mm (+/- 1%), and is 7mm thick (+/- 7%).

**EchoPanel®** Code is a nominal 500mm x 500mm (+/- 1%) and is approx. 25mm thick (including raised area) (+/- 7%).

A pack of 10 tiles covers an area of 2.5 sq. mtrs.

## Handling and Storage

**EchoPanel®** Tile and **EchoPanel®** Code should be stored flat. Storage areas should be clean, dry, cool, and well ventilated.

NOTE: Upon receipt, check your order to verify that it matches the control sample provided by your specifier. If you have any doubt whether you have received the correct product, call your **EchoPanel®** distributor or Woven Image sales representative immediately.

All **EchoPanel®** products are inspected prior to shipment. However Woven Image is not responsible for damage in shipment or in storage, customers should carefully inspect all items at time of delivery and note any obvious damage on the delivery receipt. For the customer's protection, any subsequently discovered concealed damage must be reported immediately to the carrier. Claims on Woven Image will not be considered if the tile has been cut or worked by the customer or others. No claims for labour charges will be allowed in any circumstances.

#### Handling and Storage Guidelines

Do:

- Carefully inspect the tile at time of delivery and note any obvious damage on the delivery receipt.
- Store **EchoPanel®** Tiles horizontally, with support under the tiles.
- Keep the tiles as clean as possible during storage. Both sides of **EchoPanel®** Tile should be kept free from grease, wax, dust, and chips that could leave impression.
- Store the tiles indoors, in a dry, cool, well-ventilated area.
- Avoid exposure to heat 150°F (65°C) or greater.
- Keep table tops clean to avoid scratching the tiles.
- Wear gloves when handling sheets to prevent cuts.

Don't:

- Store **EchoPanel®** Tiles near radiators, steam pipes, or in direct sunlight.

#### Cleaning and Care

Remove dust and dirt with a soft cloth or sponge and a solution of carpet or upholstery shampoo. Always use a soft, damp cloth and blot dry.

## Application

#### Surface Preparation

Prior to installation ensure the surface area to which the tiles are going to be fixed is clean and free from dust or any other containment that may impede the installation.

On concrete or block walls any high or low spots should be levelled to provide an even wall surface.

#### Tile Preparation

**EchoPanel®** Tile has a directional finish in its manufacture. It is recommended that the **EchoPanel®** Tile be installed with the grain facing in one direction; care should be taken to ensure the tiles are installed with desired grain orientation.

As **EchoPanel®** Code is slightly thinner than **EchoPanel®** Tile, if they are to be installed on the same wall and a "flush" fit is required then the **EchoPanel®** Code will require packing to achieve a level finish.

Carefully plan your installation to ensure correct grain orientation and ensure you have sufficient number of tiles for the project by laying up the tiles on the floor first.

Mark out on the wall a centre line point using a horizontal and vertical line ensuring the lines are level and are at right angles. Adjust the centre line to ensure small gaps at the edges do not occur.

The tiles can be fixed using traditional tile sequencing processes.

When applying **EchoPanel®**Tile and **EchoPanel®**Code over a large area it may be necessary, because of size variances of the tiles, to use a spacer or channel section every ten tiles in order to maintain a regular grid finish.

### Fixing

**EchoPanel®** Tile and **EchoPanel®** Code I can be fixed by nail, screw, glue. Mechanical Fastening Guidelines

Do:

- Drill holes minimum 15mm centre offset from each corner and slightly oversized to allow for thermal expansion and contraction
- When pre/drilling holes into the substrate hold the tile flat to ensure correct positioning of the tile.
- It may be necessary to use a section of double sided tape on the middle of the tile to hold in place.
- Ensure drilled holes have smooth edges.
- Use washers for better load distribution and to prevent pull through.
- Use metal inserts if frequent assembly/reassembly is required.

Nails or screws should be fastened into battens or suitable substrates.

Don't:

- Over tighten fasteners.

The benefit of using mechanical fixings is that they can be removed completely without leaving residue in order to allow the **EchoPanel®** to be recycled fully.

### Drilling

Drills designed especially for plastics are available and their use is suggested on **EchoPanel®**. Standard twist drills for wood or metal can be used; however, they require slower speeds and feed rates to produce a clean, non-gummed hole. Optimum bit speed, feed rate, and applied pressure will depend on hole size and sheet thickness. Drill speeds up to 1,750 rpm are best for smaller holes, while speeds as low as 350 rpm can work for larger holes.

Twist drills used for plastics are suited to working **EchoPanel®** —they should have two flutes, a point with an included angle of 60 to 90 degrees, and a lip clearance of 12 to 18 degrees.

NOTE: When drilling be sure to hold or clamp the sheet securely to prevent it from cracking or slipping and presenting a safety hazard to the operator.

There are many options with using adhesives; however these leave some residue on the **EchoPanel®** that must be removed when recycling the panels.

Recommended adhesives include Selleys Liquid Nails, for a low VOC application we recommend Selleys Liquid Nails – Fast or Max Bond – Fast Grip.

We recommend a test panel be used on the substrate to determine the most suitable fixing method and process.

As **EchoPanel®**Code has a slightly rounded finish it needs to have slight pressure applied to the centre of the tile when gluing the tile in place. This enables a the tile to but to the edge of the adjacent tile

### Work Safety

In the interests of work safety, it is recommended that people working with **EchoPanel®** wear the appropriate safety equipment. Although the product emits a total VOC emission rate of <0.02 mg/m<sup>2</sup>/hr (over 7 days) masks and gloves should be worn to ensure the maximum possible safety precautions.

Please refer to the Safety Data Sheet at the end of this section for its technical characteristics.

### Safety Data

#### Physical description/properties:

Specific Gravity: 0.2

Vapour Pressure: Not applicable

Flash Point: Not applicable

Flammability Limits: Not applicable

Ignition Point: > 400 degrees Celsius

Solubility in Water: Insoluble

**Ingredients:** Polyester Fibres (Polyethylene Terephthalate) - 100 percent- including up to 60% post consumer recycled content.

**Physical Hazards:** Polyester fibre product is chemically stable and resistant to attack by oils, solvents, weak acids and weak alkalis. The product will burn if exposed to flame.

**Health Hazards:** Not normally a hazard to eyes, skin, if swallowed or inhaled, due to the physical form of a product. This product is non-irritant and does not present any health hazard during manufacture, normal handling or use.

**First Aid:** The ingredients have no poison. In the event of ingestion of a substantial ingredient quantity, give water and induce vomiting. Burns caused by molten ingredient require medical treatment.

**Precautions for use:** This product does not present any specific hazard.

**Safe Handling:** No special storage or transport requirements are necessary. Keep dry. Adoption of safe working practices is recommended.

**Disposal:** At end of life uncontaminated **Echopanel®** will be taken back and recycled by Woven Image. Unless prohibited by state or local regulation, it can be disposed of in a municipal landfill or incinerated.

**Fire/Explosion:** Precautionary measures should be taken against static discharge. Products resulting from combustion of polyester will comprise of carbon, hydrogen and oxygen, the exact composition depending on the conditions of combustion.