

INTRODUCTION

Interior & Exterior Screens KIF & KATAST have been designing, customising & producing architectural screens in Melbourne for many years. Our range is characterized by its aesthetic & the sheer size of the compositions, up to 14 meters wide without repeat. This is complimented with a new range of off-the-shelf screens which have a 600mm repeat, allowing for batch production which provides cost benefits without compromising quality. The latter are perfect for projects where large areas of screening are required.

Customisation All of our designs can be customised. This can involve altering panel heights, widths or more extensive customisation, including bespoke design. From an economic standpoint, altering panel heights is cost effective. Depending on the composition, altering panel widths can become quite involved as branches and leaves often become detached or weakened when the panels are recomposed. This is not always the case and it really depends on the artwork, the panel dimensions and the number of panels involved.

Considerations Aside from design, the primary considerations are material aesthetic, suitability & the maximum sheet sizes of different materials. The sheet size is not a limiting factor as we have concealed bracketing & fabrication options, which allow panels to be installed side by side, with seamless transition. Moreover, an awareness of material sheet sizes reduces wastage & project expense. We welcome enquiries well in advance of construction to ensure that the context and dimensions specified for screening maximise efficiency.

Fixings / Installation Templates When pinning screens off a wall (stud or masonry), concealed, split-baton brackets are predominantly used. The fixings are positioned behind leaves or solid sections of the screen. We have three styles of brackets. The first is chem.-set into masonry walls, the second screwed into studs and the third used in conjunction with hollow wall anchors for stud walls where it is not easy to determine the stud location relative to the screen position. The organic nature of our screens dictates that the fixing points are randomly positioned. MDF templates are essential for your installer to quickly & accurately mark out the fixing locations. To ensure correct template orientation, two distinct negative shapes (corresponding to the screen) are cut out of each template.

Freestanding | Framing Screens To minimize the visual impact of frames, we frame screens perpendicular to the laser-cut panel. There are a number of framing options available. It is best to contact us to discuss these.

Installation All of our screens come with straightforward installation instructions, fixings & templates (where necessary). 99.9% of our screens are installed by client's builders / landscapers.

Shipping Our screens can be shipped nationally and internationally. Nationally we have two levels of service. The first (most cost effective) requires builders (or people with equivalent strength and structural awareness) to unload the panels directly from the carrier. Drop-down tailgates can be requested. The second option is furniture removalist, full service delivery.

IMPORTANT

This document is designed as introductory background information. It is not intended to be exhaustive. It is the responsibility of the user to ensure material selection is fit for purpose. No responsibility is implied or accepted.



Material Corten Steel (Matt Sealed or Unsealed)

Thickness 3mm

Maximum Sheet Sizes 1200 x 2400mm

Application Interior | Exterior

End of Life Recyclable

Considerations Leaching can be an issue with corten if it used in an inappropriate context. Mitigation suggestions are discussed on the following page.

Corten Steel

CORTEN STEEL

Corten Steel (weathering / weather resistant steel) is a steel alloy, which develops a layer of oxide that acts to protect the material. Introduced to Australia in the 1960's, subject to environmental conditions, it is said to increase the material's life by 4-6 times in optimal conditions, however, in a marine context where exposed to sea spray or fog, it rusts at similar rates to structural mild steel. In applications where the material is buried, submerged or subject to industrial fumes, the potential of the material is also reduced to that of mild, structural steel (Bluescope - Technical Bulletin_26_Rev 4, June 2004 – Remains the current bulletin 2011).

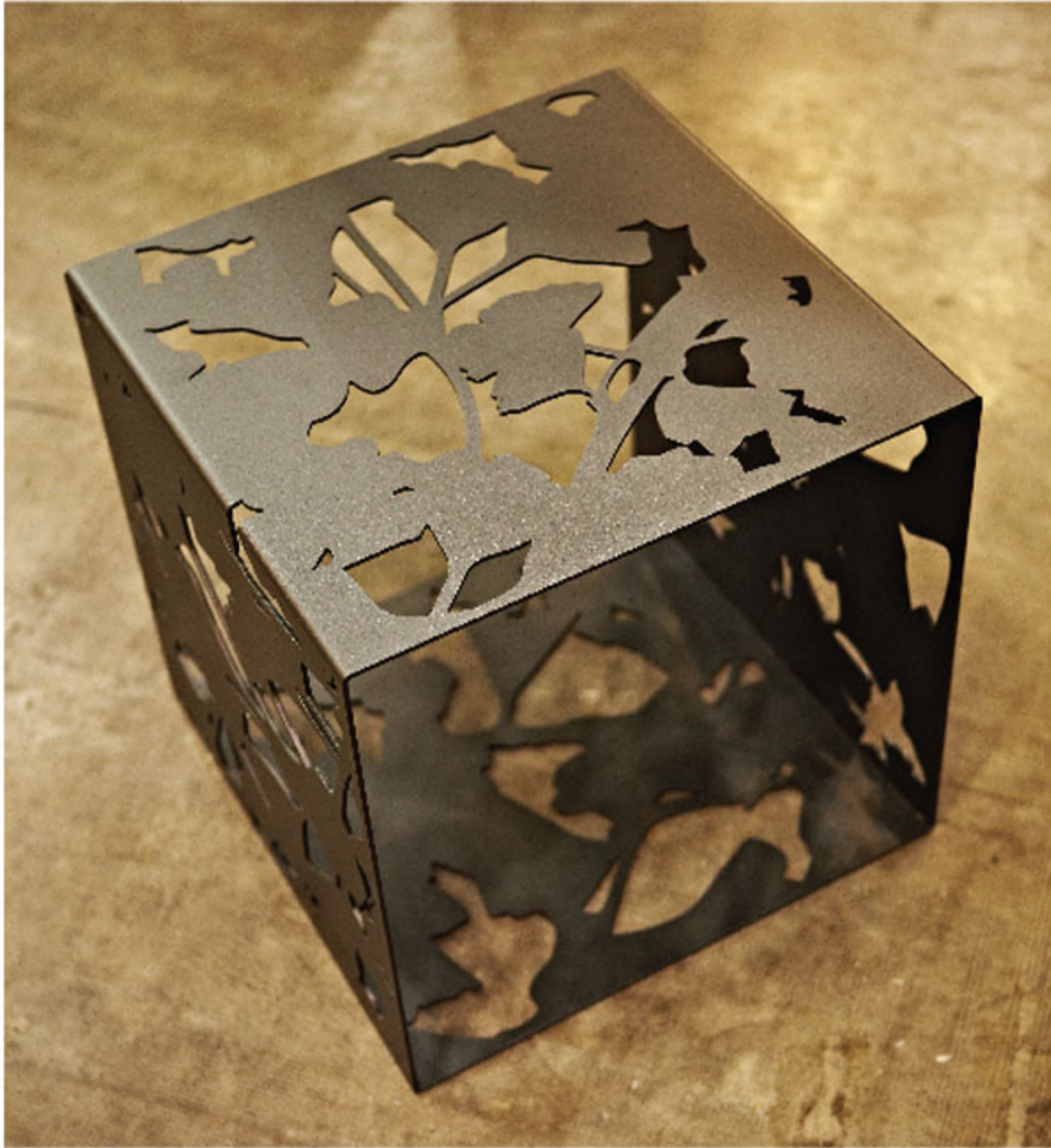
Patina To develop the patina we add water to the screens in a controlled manner over a period of time. Our screens are characterised by tonal variation. In an interior context, this patina can be preserved. In an exposed, exterior context, the screens will deepen in colour.

Leaching & Rust Oxide (Residue) While sealers reduce leaching, without future re-application, and even with re-application, you should expect residue to some degree. To retain a matt finish after sealing, you have to be careful not to over-seal the material. The screens have a lot of cut edges. This makes it impossible to ensure that these are all sealed without over-sealing and compromising the chalky aesthetic of the rust. As such, it is realistic to expect some leaching.

Un-sightly iron oxide (rust) stains can often be avoided with minimal alterations to the screen's context. If this is not possible, an alternate material & finish should be selected. When pinning Corten screens off a wall or fence, our bracketing is designed to direct residue down the screen, away from surface from which it is pinned. The landscaping below the screen must be considered. Weathered timber, rustic brickwork, a low planter or strip of grasses below the screen, gravel, pebbles, dark stone or earthy surfaces are sympathetic to, and in some instances will conceal residue. If a pale surface is desired directly below the screens, white pebbles will stain, however, these can be replaced or repositioned when and if required. If a pristine surface is desired below the panels, an alternate material should be sought.

Matt Sealer The screens can be sealed with a matt sealer that retains the chalky qualities of unsealed Corten. The resultant screens are moderately darker than an unsealed equivalent. In an exterior context, the sealer serves to preserve tonal variation and minimize leaching, however, in exposed areas, overtime, the screen will colour-up. In an interior context, unsealed screens look amazing, however, most clients prefer to have their screens sealed so that the rust does not easily rub off on passers-by and curious fingers don't leave unsightly marks. We would only recommend unsealed screens (in an interior context) if they were positioned behind furniture or somewhere where people cannot touch them. In an exterior context (ie: within a garden bed) it is appropriate to leave the screens unsealed to maximize their depth of colour and chalky appearance.

Oversized or Thicker Rusted Panels Oversized panels lengths can be obtained but 1200mm is the maximum panel width available. Mill minimums for custom dimensions are in the realm of 20 – 30 tonne. Even for large projects this is a sizeable minimum. As an alternative we can rust & seal mild steel when screens of greater panel width or thickness are required (for indoor installation in a moisture and humidity free environment). Should this be appropriate, we would use a grade of mild steel with a yield strength similar to Corten. As such, the material cost is comparable to Corten as the standard grade of mild steel is too soft to support our designs. In an exterior context, depending upon the application, compensating by increasing the thickness of the material may enable you to use over-width mild steel as a corten substitute. This would need to be assessed on a case-by-case basis. It should be noted that mild steel takes longer to develop the initial layer of oxide, thus additional time may be required to develop the patina.



Mallee Powder-coat



Mackerel Powder-coat

Finish Power-coat

Colours (LHS) Mallee (Lightly Textured) Powder-coat | (RHS) Mackerel (Lightly Textured) Powder-coat

Material 304 / 316 (Marine) Stainless Steel

Maximum Sheet Sizes 1200 x 2400mm | 1500 x 3000mm

Application Interior | Exterior

End of Life Recyclable

POWDER-COATED SCREENS (SUBSTRATE OPTIONS)

Aluminium Aluminium has the benefit of being light-weight, corrosion resistant and available in really large sheets, however, aluminium fabrication (ie: frames) cannot achieve the clean, discrete welds synonymous with steel. It is a perfect material choice when screens are pinned off a wall or structure with concealed or face fixings. Our aluminium screens are predominantly cut from 4mm material to ensure sufficient support for the branches and open areas of the designs. By contrast, our new off the shelf screens are cut from 3mm material as their design in combination with the inclusion of an integrated border, allow for the use of 3mm material. Like stainless-steel, aluminium must be pre-treated so that the powder-coat bonds with the metal, however, unlike stainless, this is a step in the powder-coating process which reduces lead-time and pre-treatment expense.

304 & 316 (Marine) Stainless Steel are Austenitic stainless steel, which is characterised by a chromium content greater than 16% & nickel content greater than 6%; this is directly proportional to their corrosion resistance. Respectively they increased corrosion resistance, however, care must be taken to ensure that the stainless steel is not contaminated with carbon or salt as localized light surface corrosion can occur. While efforts are made to limit contamination during manufacture, components are pickled and passivated at the end of the manufacturing process to remove any heat scale generated during fabrication and or contaminants. The passivation process restores & increases the chromium oxide on the surface of the material. This enhances the corrosion resistance and leaves an etched surface, to which the powder-coat adheres well.

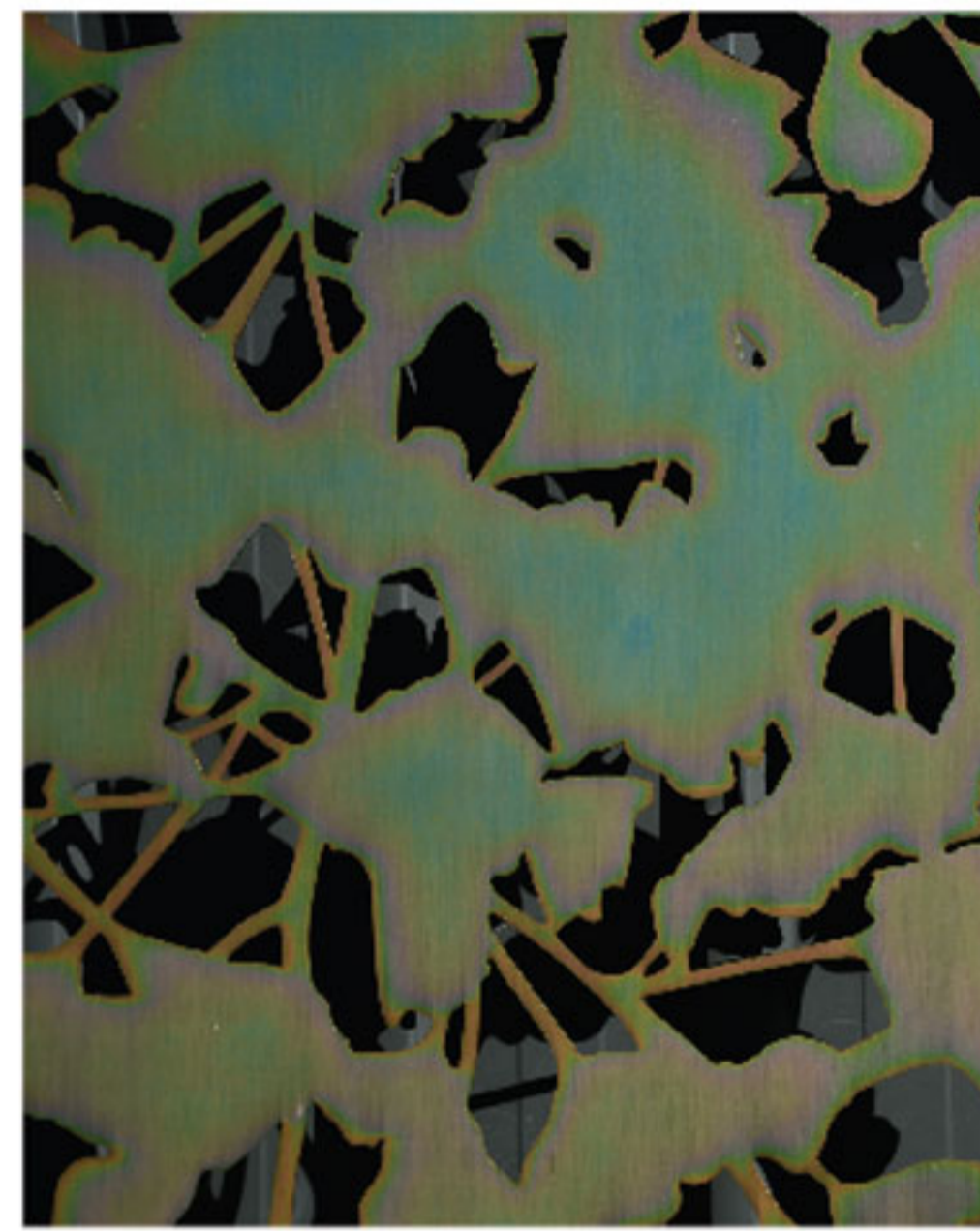
While pickle & passivation is our preferred surface preparation prior to powder-coating, whip-blasting with glass bead (in a dedicated stainless steel booth with no carbon contamination) can also be used to remove contaminants and prepare the surface for the powder-coat to adhere to. Powder-coat will not adhere to stainless steel without surface preparation. Chemically cleaned stainless steel (pickle & passivation) is significantly more corrosion resistant than mechanically cleaned steel (whip blasting).

Fixings To avoid galvanic corrosion, stainless fixings or o-rings in combination with other fixings should be used to avoid the stainless steel panel coming in contact with other metals.

Mild Steel Zinc plated mild steel is commonly powder-coated for interior & exterior (non-marine) use, however, there is the risk of filiform corrosion where moisture ingress occurs along cut edges or welds (rust creeps between the mild steel and the powder-coat, causing the powder-coat to lift). It is commonly perceived that powder-coat in its own right protects the material from corrosion, however, this is far from the case as polyester powder-coating absorbs moisture.

Given the fore-mentioned and that any chip or scratch through the zinc plating will expose the mild steel to the environment, we prefer to upgrade the substrate to aluminium or 304 stainless at cost. This is a worthy investment given that our designs are not intended to be fashion driven. There is nothing more disappointing than purchasing "good quality", powder-coated, outdoor products only for them to begin rusting a year or two later. Frequently mild steel is powder-coated without appropriate corrosion pre-treatment. This unfortunately has become acceptable in a world that seems focused on fashion rather than quality. We like to go a step further and avoid using mild steel other than in an interior context (away from the coast and free of steam and humidity).

Hot dip galvanizing in many applications is a viable corrosion protection for mild steel, however, we cannot galvanize our screens as the heat at which the dipping occurs would warp them, aside from the fact that it invariably produces surface 'dags'.



MasterChef Series 4 'Durado Screens'

Finish 'Durado'

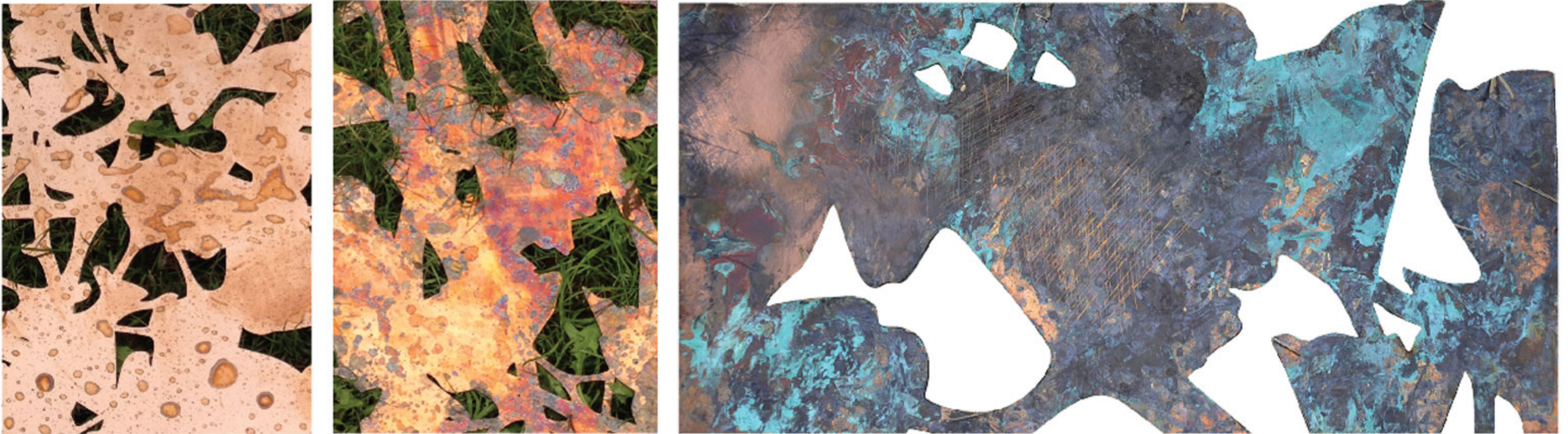
Thickness 3mm

Maximum Sheet Sizes 1200 x 2400mm

Application Interior | Exterior (Non-Coastal)(Sealed)

End of Life Recyclable

Considerations This finish is best used in an interior context. Exterior screens do not have the durability of a stainless steel substrate, however, in a non-marine environment they can be used with a matt sealer. This sealer needs to be reapplied every six years (approximately). Our concealed, split baton bracketing allows for future removal of screens. This finish is great for individual or layered panels, however, colour variation between adjoining panels limits success when a 'seamless' series is desired.



Copper Plated Stainless Steel

Material Copper-plated Mild Steel / Stainless Steel / Aluminium

Thickness 3mm (Mild & Stainless Steel) | 4 - 6mm (Aluminium)

Maximum Panel Dimensions 950 x 2700mm (Mild & Stainless Steel) | 950 x 2300mm (Aluminium)

Application Interior | Exterior (Stainless & Aluminium Only)

End of Life Recyclable

Considerations Panel Dimensions are restricted by the plating bath sizes. Please contact us to discuss substrate suitability prior to specifying screens.



4mm 'Spectra' Alucobond



4mm 'Standard' Alucobond

Material Alucobond 'Standard' & 'Spectra' Range

Thickness 4mm (Minimum)

Panel Dimensions Oversized panels available.

Application Interior | Exterior

End of Life Aluminium & Polyethylene can be separated and recycled.

Considerations Alucobond is available in oversized sheets, however, transportation, handling etc. must be considered. Router bed limitations may apply.

Please contact us to discuss proposed dimensions prior to specification.

ALUCOBOND

Alucobond was released in 1969 and is used primarily as an exterior, weatherproof, cladding system. It is comprised of a polyethylene core, which is sandwiched between two layers of aluminium. The colour on the front of this lightweight, composite panel, can be selected from a range of colours, either 'Standard' or 'Spectra'. The latter has an iridescent finish. The reverse side of the panel is mill finish and is not supplied PVC coated. As cladding (which is the product's primary use), there is no reason to protect the reverse side of the panel. This makes it almost impossible to obtain sheets with scratch free backs. As a result, Alucobond screens are best pinned off a solid surface with concealed split baton bracketing, rather than in a freestanding context where the back of the panel is seen.

Panel Thickness While the material comes in various thicknesses, 4mm is the minimum thickness appropriate for cut our screens.

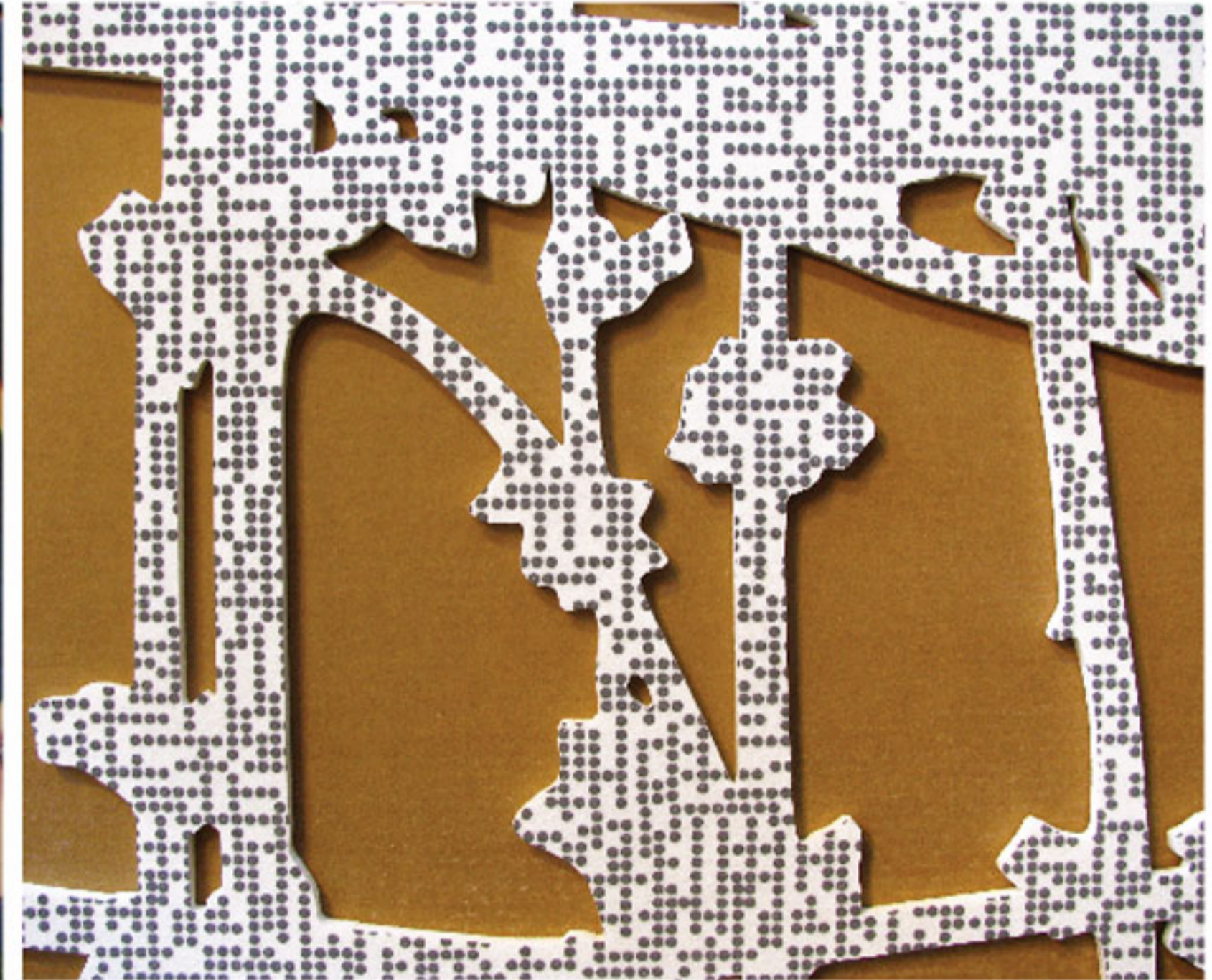
Sheet Sizes Please download the 'Alucobond Standard Range' brochure at: www.alucobond.com.au/products/alucobond for a current list of colours and sheet sizes available. For the 'Spectra Range' you need to contact Alucobond directly.

Oversized Panels If you are looking for oversized panels, please ensure that you consult with us to ensure our manufacturer's equipment can handle the dimensions.

Colours The 'Alucobond Standard Colour Chart' can be downloaded from: www.alucobond.com.au/products/alucobond, however, it is recommend that you request a hard copy of this chart and or samples from Alucobond, before making colour selections. The 'Spectra Range' charts / availability must be sought directly from Alucobond. Stock levels of the 'Spectra Range' vary considerably. The stock carried is usually excess from large projects. Colours which are not in stock, can be ordered, however, these can have considerable lead-times.



Chestnut Echo Panel Screen
Colour 542



Sorrel Echo Panel Screen
Colour Puzz 447

Material Echo Panel

Thickness 12mm

Maximum Sheet Sizes 1190 x 2390mm

Application Interior

End of Life Recyclable when free of contaminants, however, the manufacturer requires the offcuts to be delivered to Sydney.



7mm Echo Panel Screens
18mm Plywood Screens with coloured Wash



Applying Glue to laminate Screens
(Application window - 20 mins!)



Echo Panel / Plywood Laminated Panels

ECHO PANEL

Echo Panel is a PET (polyethylene terephthalate) product, which has the appearance of felt, yet is reasonably rigid. It is created and manufactured by Woven Image. Approx 60% of the PET is recycled content ie: plastic bottles. It comes in a range of contemporary colours. Colours & samples can be viewed and ordered through the woven image website:

<http://www.wovenimage.com>

This product has acoustic properties, which are maximised when the panels are pinned off a surface, at an optimum distance. To retain the acoustic effect, it is best to adhere our echo panel screens to a solid echo panel backing, so that the cut-outs don't reduce the acoustic potential. This layering creates a textural dynamic while maximising function. The backing sheet of echo panel is charged at cost.

Should you prefer to pin the screens off a wall (without the solid backing layer), we usually laminate the echo panel to an identical screen cut from plywood which we colour match. This provides the necessary strength to pin the panel off a surface, however, it does affect the acoustic performance.

KIF & KATAST



Ginkgo Spa Panel

Material Toughened Starfire (colourless) glass with the design laminated between two 6mm toughened panes

Thickness 13.52mm

Sizes Custom

Application Interior | Exterior

Considerations With exterior application the cross-section of the laminate must be protected from the weather with a discrete aluminium strip.



Material Plywood with Acrylic Wash or Timber Veneer

Thickness 16mm

Maximum Sheet Sizes 1200 x 2400mm

Application Interior

Considerations The artwork strength / branch thickness etc. must be considered when specifying plywood. For fine details, laser-cutting is preferable, however, charred cut edges result. This makes the finishing process more labour intensive. Charred edges can be avoided with routing, however, the router bit radius dictates that the design is simplified to an extent. Ply can look great, however, it is not necessarily a cheaper option.