

Working with Aluminum Composite Panels

By Donna Mayne

Art Director of the City of Windsor Art Studio

Since 1998, The City of Windsor Art Studio has highlighted Windsor's heritage and achievements in the form of mural art. To date, we have 40 mural sites that reflect the uniqueness of four different business communities and have provided work experience and exposure to more than 50 local artists.

The substrates used for the murals have varied from site to site. We've applied paint directly to brick, cement block and stucco as well as portable surfaces that include Duraply, Bungee Banner, Dibond and Alucobest.

Dibond and Alucobest are registered trade names for aluminum composite panels that can be ordered from most distributors of sign products. The panels are made up of two thin sheets of aluminum that sandwich a plastic core. Front and back are finished in a hard and shiny coating of paint. The panels can be ordered in a variety of colours. We generally purchase 4' x 8' or 5' x 10' panels in 3mm thickness.

(See links for detailed specs)

Dibond http://www.dibond.com/alcan/acsites.nsf/pages_acde_en/index.htm)

Alucobest <http://www.huayuanfu.com/e/faq.htm>

Painting on portable surfaces has obvious advantages. You can paint indoors year-round and if the installed mural is not site specific, the panels can be removed and relocated if the building is sold or torn down.

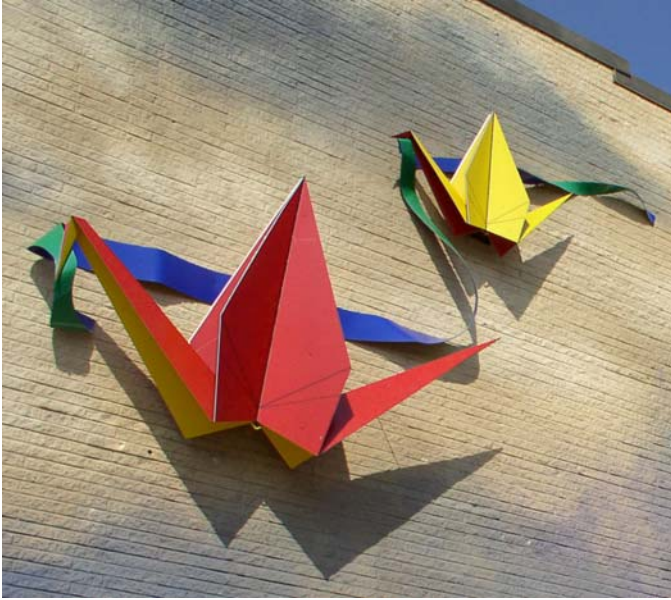
Aluminum panels are ideal for murals because, unlike wood, they're not affected by moisture. They don't buckle, swell or delaminate. They are lighter in weight, can be bent to form curves, and can be precisely cut to any shape.

Applications

Detail from *Safe Passage*, shows panels of Alucobest cut, painted and installed on a brick wall.

Artists: Steve Jamieson,
Donna Mayne,
Bernadette Robertson,
Jacqueline Raulin,
Sherrill Tucker and
JoAnne Weston.





Inspired by the Japanese art of origami, these cranes carry a “Harmony Ribbon” across the wall as a symbol of our desire to live in a peaceful and harmonious society. For this mural, we ordered Dibond panels in yellow, red and blue. The green is a vinyl coating we applied.

Detail from *Peace Cranes* by:
Donna Mayne, Paul Mazak,
Andrea Milne and Naushad Shaikh

Procedures

1. The panels arrive with a plastic film that needs to be removed. Below are photos of artists working with both black and white Dibond.



2. The panels are lightly sanded with 100-grit sandpaper - just enough to dull the sheen and provide a tooth for the primer. Avoid over-sanding, as this will expose the bare aluminum.
3. Remove all the dust with a damp cloth then prime with a good quality metal primer. We use Zinsser Bulls Eye 123 primer.

If desired, you can also draw on the plastic film, cut and peel away only the areas of the panels you want to paint. The film acts as a perfect masking material. However, if you’re working with acrylic paints, exposed areas should still be gently sanded and primed first to ensure proper paint adhesion.



Inspired by hood ornaments from around the world, this detail of *Carousel* was spot primed and painted on black Dibond.

Artists:

Terry Baker, Paul Foley, Donna Mayne and Ryan Pearson

4. Panels can be cut with a jigsaw or table saw using metal blades. Eye protection is a must as the fine metal shaving pose obvious hazards.
5. The newly cut edges are very sharp and should be rasped or sanded to make handling safer.



6. After the painting is complete, a clear coat is applied. No need to worry about this material “breathing.” We send our panels to a local auto-body shop and have them professionally cleared. The result is a beautiful car-like finish that can be easily washed and has the added protection of UV filters.

Installation

Installation varies according to the surface to which the panels are mounted. It is recommended that an architectural engineer be consulted. For simple installs on brick, we generally use 1 ½ inch stainless steel flathead screws with nylon Mungo plugs. We pre-drill holes in the panels and brick, tap in the plugs and then drive in the screws. The screw heads can also be primed and painted to match the mural. The screws are placed at 16” intervals around the perimeter and 32” intervals in the middle of each panel.



***The Windsor Star/
20th Century Chronicles***
Was painted on 41 panels of Dibond. Cutting the panels helped create the trompe l'oeil effect of the architectural motifs. This mural was installed directly on the walls.
Depicted, is the history of the Windsor Star on the left and its coverage of our community on the right.

Artists: Terence Baker,
Lorraine Eadie, Paul Foley,
Cheryl Golden,
Melissa Kaiser,
Donna Mayne,
Lynda Moffatt,
JoAnne Weston

Uneven walls will prevent the panels from lying flat and tight together. If the walls are too rough to work with, we create a framework of 16” centred steel or wooden studs that are secured to the wall by specially engineered brackets, epoxy and steel rods. The mural is then secured to the frame using appropriate stainless steel screws or rivets.



Canadian History Made in Windsor was painted on a combination of Dibond and Alucobest.
Artists: Ray Baillargeon, Vaughn Beneteau, Steve Jamieson, Donna Mayne, Justin Miller,
Chantal Quinn, Jacqueline Raulin, Irene Way and JoAnne Weston

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