technical fact sheet

imageboard

Corex Plastics - Australia

Imageboard is a specially developed composite Graphic Arts Board manufactured by a process that permanently bonds a specially formulated synthetic liner with a Polypropylene twin wall hollow profile extruded sheet.

Application

Designed as an all purpose, all weather Graphic Arts board, Imageboard can be supplied either single or double sided making Imageboard one of the strongest most versatile produce on the market today. Dalton's standard range is single sided. Double sided is available on indent.

Accelerated weathering tests indicate up to two years of outdoor life can be expected. More detailed independent testing is now underway.

Imageboard's smooth surface eliminates the ribbing effect, and being corrugated allowed premium quality 4 colour process screen printing at a fraction of the cost of other comparable substrates.

Imageboard is UV stabilised, waterproof & acid free for outdoor applications. The rigid and durable construction of Imageboard is the most economical and superior Graphic Arts Board for:

- Screen Printing
- Signs
- Pop Displays
- Building exhibits
- Mounting photos
- Digital Images
- Lithos
- Packaging

Fabrication

Imageboard can be fabricated into packaging forms by using standard box making techniques. Flatbed processes with either cam action or single stroke are generally preferred. To join seams the best results were achieved by Ultrasonic Welding, Metal stitch hot melt glued or double sided tapes.

To diecut, use a three to four point single sided bevel edge-cutting rule. A six point creasing rule is to be used when creasing parallel with a flute. When creasing across the flute a 3-point rule is sufficient for a bend up to 90°. For a greater angle, a 2 or 3 point creasing rule should be set 5mm apart. Perforating of Imageboard is not recommended.

To handcut 3.3mm or 5.3mm Imageboard use a sharp bladed utility knife with a steel rule and cut at a low angle. For thicker 8.3mm Imageboard (indent only) cut into the smooth surface then, break out over edge of bench. Special knives are also available which will cut both the flute and the surface thus allowing for fewer bulges at corner when folded.

Guillotining of 3.3mm and 5.3mm Imageboard is easily achieved using same techniques when guillotining Fluteboard. The blade should be cut to angles of 15-29° and constantly maintained to a sharp edge.

Painting

No preparation or priming of Imageboard is required except to ensure surface is clean and dust free.

Trials have shown that most paints will adhere to Imageboard quite readily. A small area should be tested to ensure that adhesion is adequate. Paints should not be applied in excessively heavy coats as this will retard drying and may trap solvents, thus reducing adhesion. Air drying following manufacturer's instructions is recommended for all paint systems. It is a good practice to test adhesion to ensure that the paint has properly dried and cured.

When using water based paints such as Deka, it is recommended that a coat of UV clear be applied to the finished sign.

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Screenprinting

Imagebaord has screen printed successfully with solvent based water based and UV curable inks. Various manufacturers such as Serical have tested their inks and can make detailed recommendations. Select only inks recommended by the manufacturer for polypropylene printing. As with all screen printing inks a test piece should be processed to ensure that all conditions are optimal before the complete job is run. It is also important to ensure that Imageboard is clean and free from dust and other contaminations before screen printing.

Solvent Based Inks

Solvent based inks can be either air dried or tunnel dried. Max. tunnel temperature should not exceed 140°F. Inks successfully tested to date are Sericol.

Water Based Inks

Water based inks can be handled in equipment traditionally used for solvent based inks.

Ultraviolet Inks

UV inks can be used successfully with Imageboard especially Sericol's UV curring Solaflex range. The inks are easy to apply and can be cured in many common types of UV curing equipment. UV dryers should be designed with cooling in the curing section vacuums to keep Imageboard from bouncing and guards to keep the board from hitting the UV lamp. Temperatures should not exceed 50°C. Sheets that do bow in an UV dryer should flatten out when cooled. 3.3mm Imageboard is the most likely to bow if the UV lamp temperature exceeds 50°C.

Adhesives

Imageboard needs no special preparation other than ensuring surface is clear of contaminants and dust free. The adhesive selected should be specifically recommended by its manufacturer for use on polypropylene. When using contact or spray adhesives care must be taken to ensure sufficient open time to allow the solvent to escape, Typical adhesives successfully used include 3mm Supper 77 and 75 spray adhesive. Whilst 77 has a more aggressive board strength, 73 has a finer spray pattern. Recommended that adhesive test be carried out before use and adhesive manufacturers should be contacted for information and recommendations of use.

Photo Mounting

Imageboard's smooth finish provides an excellent surface for mounting with pressure sensitive adhesive film. As with all photos mounting applications, the board's surface should be clean and free of dust and other contaminants before mounting.

Pressure Sensitive Mounting

The pressure sensitive film selection is critical to the proper mounting of photographs and the manufacturers of the films are the best source for film recommendation.