

## Formica® ColorCore® 2™ Laminate

**Formica ColorCore2 (Solid Colour Laminates in Velour and MicroDot finish) is a unique surfacing material having the same colour throughout. It is intended for application to interior horizontal or vertical surfaces where design, appearance, quality, durability, and resistance to stain and heat from ordinary sources are required.**

**Formica ColorCore2, Solid Colour Laminate in Gloss finish, is intended for application to interior vertical or light duty horizontal surfaces.**



### APPLICATIONS

Formica ColorCore2 is used in commercial and domestic interior applications. It is ideal for use on horizontal surfaces such as bench tops, bars, built-ins, cabinets, counters, computer equipment, cupboard doors, furniture and fittings, office and reception desks and store and display fixtures. Gloss finish is suitable for light duty horizontal applications. Gloss is not suitable for countertops or kitchen worktops.

It can also be used on vertical surfaces such as wall panels, partitions and door facings.

### PRODUCT CHARACTERISTICS

Size:	3055 mm x 1225 mm
Thickness:	1.0 mm nominal
Weight:	1.5 kg / m <sup>2</sup> approx.
Finish:	Gloss, MicroDot, Velour
Colours & Pattern Range:	Refer to current Product Availability Chart

### LIMITATIONS

Formica ColorCore2 is designed for interior use only. Do not adhere directly to plywood, plaster, gypsum board, or concrete. Formica ColorCore2 is not a structural element and must be supported by the recommended substrate over its entire surface area.

Do not use in areas exposed to temperatures exceeding 135°C, or for exterior applications.

Formica ColorCore2 is made from different resin compared to other Formica laminates, which causes a slightly different colour hue from its corresponding standard High-Pressure Laminate (HPL). This colour difference does not constitute a defect.

Standard HPL and Formica ColorCore2 are considered to be coordinating rather than exact colour matches to each other.

Formica ColorCore2 is not recommended for post forming.

Gloss is not suitable for heavy-duty applications such as kitchen bench tops or countertops.

Organic solvents such as acetone, MEK and toluene may stain the surface if applied too long when cleaning glue residues from the surface during fabrication. Use a minimal amount of solvent and for only a few minutes.

### FIRE TESTS

(Typically achieved when tested to AS/NZS 1530.3)

Indices	Result*	Range
Ignitability	14	0-20
Spread of Flame	0	0-10
Heat Evolved	0	0-10
Smoke Developed	5	0-10

\*Laminate unadhered

(Typically achieved when tested in accordance with Cone Calorimeter AS/NZS 3837 (Irradiance of 50kW/m<sup>2</sup>))

Classification	Result*	Unit/Range
Group Number	2	1-3
Average Specific Extinction Area	61.8	m <sup>2</sup> / kg

\*Laminate unadhered

### PROPERTIES

(AS/NZS 2924.1)

PROPERTY	RESULTS
Appearance# (NEMA LD 3-2005 3.1.4)	No A, B, C defects
Resistance to Surface Wear:	Average wear not less than 350 cycles.
Resistance to Immersion in Boiling Water:	No delamination
Resistance to Dry Heat at 180°C:	No deterioration other than slight loss of gloss and/or colour only visible at certain angles. No worse than a moderate change for gloss finish, visible at all angles.

Dimensional stability (at elevated temperature):	Dimensional change of not more than 0.60% with grain and 1.05% across grain
Resistance to impact by small diameter ball:	Minimum impact resistance of 10 N spring force
Resistance to cracking under stress:	No worse than hairline cracks visible under x 6 magnification
Resistance to scratching:	Minimum 0.5 N force for Gloss and dark colours, > 2 N for other finishes
Resistance to staining:	Reagent groups 1 and 2: No visible change other than slight effect for organic solvents. Reagent groups 3 and 4: No worse than a moderate change of gloss and/or colour
Resistance to colour change in Xenon arc light*:	Grey scale rating of 4-5 at Blue Wool scale 6
Resistance to cigarette burns:	No deterioration other than moderate change in gloss and/or moderate brown staining.
Resistance to steam:	No worse than a moderate change of gloss and/or colour
Resistance to hot water pot (EN12721:1997):	No worse than slight change of gloss and/or colour only visible at certain angles. No worse than a moderate change for gloss finish, visible at all angles.

\* A defects - smudges, smears, fingerprints or streaks.  
 B defects - foreign particles  $\geq 0.6\text{mm}^2$  size.  
 C defects - 3 or more foreign particles within 30cm diameter circle each  $\geq 0.3\text{mm}^2$  size. Visible within specified viewing distance and with standard light setting.

\* Formica ColorCore2 laminate has good colour retention and dimensional stability in normal interior applications. However, prolonged exposure to sunlight may cause shrinkage and/or some change in colour. Formica ColorCore2 laminate is not recommended for exterior applications or interior applications with prolonged exposure to direct sunlight.

## WHEN SPECIFYING

Surfacing shall be Formica ColorCore2 laminate as supplied by The Laminex Group. Colours and/or pattern shall be ..... in ..... finish.

## PROCESSING

### Storage

Formica ColorCore2 laminates should be stored horizontally and fully supported, with the top sheet turned face down and a sheet of particleboard or MDF placed on top to protect the material from possible damage and reduce the chance of warpage of the top sheets. Formica ColorCore2 sheets should be protected from moisture and should never be stored in contact with the floor or outside wall. Optimum conditions for storage are approximately 24°C, and 45% to 55% relative humidity.

### Preconditioning

Prior to fabrication, allow Formica ColorCore2 laminate and the substrate to acclimate for at least 48 hours at the same ambient conditions. Optimum conditions are approximately 24°C and at a relative humidity of 45% to 55%. Provisions should be made for the circulation of air around the components.

### Substrates

Formica ColorCore2 laminate should be bonded to an appropriate substrate, such as Medium Density Fiberboard (MDF) or particleboard. Plywood is not acceptable nor a warranted substrate for Formica ColorCore2 laminate application. All substrates should be sanded smooth, clean, free of oil or grease, and uniform in thickness.

### Adhesives

Formica ColorCore2 laminate sheets do not have dark edges to mask the adhesive line. Use cross linking PVA, or non-pigmented contact adhesives. Manually applied contact adhesive application is not ideal and factory application is preferable. If using contact adhesive ensure that the glueline is thin and even though still consistent with a good bond otherwise a thick glueline might mar the monolithic effect. Cross linking PVA or clear drying urea adhesives are preferable.

Resorcinol, pigmented contacts, and dark-colored urea adhesives tend to leave a noticeable adhesive line and should be avoided. Follow the adhesive manufacturer's recommendations.

Certain combinations of finish, substrates, and adhesives can cause telegraphing. Cold curing is less likely to cause telegraphing than heat curing.

### Assembly

Formica ColorCore2 laminate can be sawed, drilled, routed and fabricated using standard carbide-tipped cutting tools. Laminate should always be cut with the decorative side uppermost to minimise surface chipping. All inside corners of cut outs must be radiused as large as possible (5mm minimum) to avoid stress cracking. The edges and corners should be routed, sanded or filed smooth and free of chips or nicks.

Over-cutting inside corners should be avoided as this may increase the risk of stress cracks.

Panel assemblies should be laminated with a suitable backing sheet to minimize warping (use Formica ColorCore2 as a balancing sheet on door applications). For optimum flatness line the back of the panel with the same Formica ColorCore2 laminate. Where a degree of bow can be tolerated or for panels fixed to a rigid substructure, use a laminate of similar thickness such as Formica Liner Grade Laminate 1.2mm for backing. Always align sanding marks in the same direction.

Care should be taken to eliminate stress cracking after construction. Seams should be placed to intersect at inside corners in the construction of countertops, or to lie adjacent to cut outs in vertical applications. The use of these techniques allows dimensional movement to occur naturally without placing additional stress on the construction.

Formica ColorCore2 is not recommended for post-forming. However 60mm wide strips can be bent to a minimum radius of 150mm. Heat will facilitate bending.

Butt joints can be sealed using waterproof mastic (follow the sealant manufacturer's instructions) to prevent the ingress of water into the substrate glue line.

## DESIGN CONSIDERATIONS

The inherent characteristics of Formica ColorCore2 laminate impose certain design restrictions. Some of these are outlined below.

### Stress Cracking

High pressure laminate is a wood based product and will expand and contract with changes in humidity.

Consequently, in conditions of low humidity caused by central heating, or where there is localised heating from radiator grilles or hot air vents, cracks may occur at sharp internal corners, e.g. at door apertures or in L-shaped worktops.

Stress cracking is the result of the tension stresses that occur when the dimensional movements of the laminate and the substrate to which it is bonded are different. To prevent stress cracking the following measures should be taken: Internal corners of apertures and cutouts must always be smoothly radiused. The radius should be as large as possible, with 5mm radius minimum. The radius should be increased as the side lengths of the apertures increase.

If sharp internal corners are required as a design feature, butt-joining separate panels of decorative laminate should form these.

For walls, where on-site bonding with contact adhesive will occur, panel widths should not exceed 600mm. Where wider panel widths are required; these must be fabricated using rigid-set

adhesives. The risk of stress cracking is minimised if panel joints are located at window edges and electrical points.

The use of contact adhesive should be avoided in particularly vulnerable areas such as near radiator grills.

Laminate panels should be fixed firmly to prevent any bending or twisting that can cause stress.

The laminate should be pre-conditioned for at least two days prior to bonding by exposing it to similar conditions as the fabrication shop or site application. This will ensure that subsequent stresses are kept to a minimum.

Oversized holes must be used to ensure that fixing screws do not impinge on the laminate. Do not over tighten screws.

## USE AND CARE

Formica ColorCore2 sheets may be cleaned with a clean, non-abrasive, damp cotton cloth and a mild liquid detergent or household cleaner. If in doubt about the suitability of a particular cleaner or detergent, check with its manufacturer.

Use of abrasive cleaners, powders, scouring pads, steel wool, sandpaper, etc., can damage laminates and make them susceptible to staining. Ceramics, including unglazed materials and other abrasive objects, can cause scratching and premature wear – do not slide these items across surface.

Acid or alkaline-based cleaners, compounds, etc., will mar, etch, corrode, and permanently discolour laminates. Never use these materials on laminates, nor allow bottles, rags, etc., contaminated with them to contact laminate surfaces. Accidental spills or splatters from these harsh materials should be wiped off immediately, and the area rinsed thoroughly with water.

Examples of these materials are: drain cleaners; rust removers; coffee pot

cleaners; metal cleaners; ceramic cook top cleaners; tub and tile cleaners; chlorine bleach; oven cleaners; some countertop cleaners; toilet bowl cleaners; and some disinfectants.