



G S Sales Technical Brief

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Kydex-101

Laminating Kydex

For years customers have laminated Kydex using a contact adhesives, like a 3M's Fastbond 30. This is a very effective way to laminate Kydex however in production quantities it is a very slow process. We have had a number of companies laminate Kydex but have been hesitant to share their procedures. The reason for this is because Kydex is a custom Acrylic/PVC compound that is very resistant to most chemicals. These same advantages in application make bonding Kydex difficult.

National Casein Company has worked with a number of laminators of Kydex. They have been kind enough to share some of their recommendations to us, for bonding Kydex on board with standard laminating machines. The procedures are similar for both Hot Press and Cold Press Machines.

Recommended Adhesive (Cold & Hot) National Casein 54M w/5% solvent
Recommend use of an application roll with 16-20 grooves V-grooves per inch.

Note: this is very important as fewer grooves will cause the adhesive to telegraph through the sheet.

General Rules for both Hot & Cold Laminating:

- Board and Kydex need to be in plant at ambient temperature for at least 74 hours before the lamination procedure.
- Board must be smooth and do not rely on adhesive to act as a filler.
- Adhesive must not freeze, even in transit as this will neutralize the Adhesive and make much less effective.

Hot Laminating:

- Adhesive should be applied at 180°F for best application
- Kydex sheet should be applied within 2 minutes after application of adhesive.
- Laminated sheet must then be put through pinch roller.
- Cold stacking is acceptable and will have no effect on lamination.

Cold Laminating

- Kydex should be applied to the board with in 10 minutes on 4mm board and 15 minutes with 6mm board. Longer than this will result in a substandard bond between the Kydex and the base material.
- Adhesive must be wet when Kydex is applied to the board.
- Most test are done after Kydex has set on board for 3 weeks. Very satisfactory bond occurs.
- Cold stacking is acceptable and will have no effect on lamination.

Please note, G S Sales and Kydex gives this information with no guarantee or warranties. This information is to give you some guidelines to help in your own production procedures. Please note all manufacturing operations are different and each company must develop it the procedures that are best for their independent operation.

We also want to thank National Casein Company and Sales Engineer Jon Van Pelt for their information. National Casein is a very good company but not the only adhesive company that will be good for laminating Kydex. Please check with your supplier for the best adhesive for your application.