

Bonding KYDEX® Sheet to Wood

For information applicable to KYDEX® FST please refer to 300 series technical briefs.

TB - 103C

Introduction

Due to its excellent chemical resistance, KYDEX® thermoplastic sheet can be more difficult to cement than other plastics. Herein we discuss how to cement KYDEX® sheet to wood. Strong bonds can be obtained for most applications using the methods shown below. KYDEX® sheet can also be joined to itself or to other materials using mechanical fasteners in place of adhesives.

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Preparation for Bonding:

For best bonding results, the substrates MUST be free from dirt, grease, and dust. To clean the surfaces wipe with a solvent such as isopropyl alcohol before you apply the adhesive. Remember that the bonding process works best if done in a temperature controlled environment of approximately 18° - 24°C (65° - 75°F).

Recommended Adhesives:

Product Name	Phone	Web
3M Fastbond 30NF, 3M 2262	1.800.362.3550	www.3m.com
Ashland Chemical Isogrip	1.800.531.7106	www.ashchem.com
National Casein PVC-E (EVA base)	1.773.846.7300	www.nationalcasein.com
Rohm & Haas M630 and M637	1.800.367.3318	www.rohmhaas.com
Formulated Solutions XT-2000 Mastic	1.718.267.6380	www.formulated-solutions.com

Please Note: If a latex primer is applied to the wood before applying the adhesive, it will decrease the amount of adhesive that absorbs into the wood when the first coat is applied. The latex primer is not mandatory for good adhesion.

Using Water Based Contact Adhesives (3M Fastbond 30NF):

- Apply two coats of adhesive to the wood, allowing the first coat to dry thoroughly before applying the second coat
- Apply one coat to the KYDEX® sheet
- Adhesive should be dry and not feel tacky when you are joining the substrates together. KYDEX, LLC recommends a minimum of 45 minutes before adhering the substrates
- After adhesive dries, three hours remain to complete the job
- The longer you wait (up to four hours) the stronger the initial bond will be
- Apply pressure to make good contact between substrates. For hand lay-up, the Crain #333 high-pressure roller is recommended. You can purchase the Crain roller at <http://www.craintools.com>
- Contact adhesives bond immediately upon contact - use slip-sheets to prevent accidental bonding

KYDEX, LLC

ISO 9001 and 14001 Certified

Customer Service

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Using Mastic Adhesives (XT-2000):

- Apply the adhesive to the wood surface only; cover 100% of the surface uniformly, using notched trowel.
- Insufficient adhesive is the cause of most problems.
- Allow adhesive to set up according to instructions on the adhesive container label.
- Join the substrates, applying pressure to ensure good contact.

Using Solvent Based Contact Adhesives (3M 2262):

- Apply a uniform coat of adhesive to both the wood and the KYDEX sheet. Wood may require two coats (allowing the adhesive to dry between coats) because it is porous
- Allow adhesive to dry until it is tacky but does not transfer to the knuckle when touched (about five minutes, depending upon temperature and humidity)
- Complete the bond within 20 minutes using firm pressure to ensure good contact.

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