BOSTIK

Isoset™ Adhesives

FOR ENGINEERED WOOD AND MASS TIMBER PRODUCTS

Bostik, an Arkema company, manufactures industrial adhesives and sealants designed to improve operational efficiencies and increase end-use performance around the globe. By working closely with customers, our experts are able to understand their evolving needs and formulate our solutions to make it easier to accomplish their goals and address tomorrow's problems today.

Engineered Wood Products

ISOSET POLYURETHANE EMULSION POLYMER (PEP) ADHESIVE

Isoset UX-100 series adhesives is a two-part system based on 100 percent reactive polyurethane adhesive blended with conventional Isoset emulsion. This system offers fast green strength and complete cure times, while providing excellent bonding properties for less than perfectly machined tolerances. Isoset UX-100 series adhesives has been used successfully on structural fingerjoints and wooden I-joists, as well as web-to-web applications for making I-joists where no preparation is needed (butt joints).

ISOSET EMULSION POLYMER ISOCYANATE (EPI) ADHESIVE

Water-based Isoset adhesives use a two-part emulsion polymer isocyanate technology to produce bonds with excellent creep, shear and tensile properties. Parts bonded with Isoset adhesive are extremely durable and offer outstanding resistance to moisture and humidity. Isoset adhesives have been specified for engineered wood (I-joist, glulam, LVL, vertical studs, etc.), millwork, hardwood flooring, structural foam core panels and structurally insulated panels (SIPs).

ATTRIBUTES

- Excellent structural properties
- Cure at wide range of temperatures
- Water-based
- Cleans up with water
- Contains no formaldehyde
- Moisture and solvent resistant
- Neutral color – no red stains
- Cure at neutral pH
- Environmentally acceptable

BENEFITS

- Facilitate web-to-web butt joints in I-joists
- Tolerance to the moisture contents of wood
- Fast cure
- Achieves strength faster than competing adhesives to optimize production
- Designed specifically for soft woods used in EWP applications

APPLICATION METHODS

- Extrusion
- Roll Coat

CURING TECHNIQUES

- Cold Press
- Hot Press
- RF Cure

I-JOISTS

- High performance strength
- Neutral (Wood) color glue line
- Fast cure rate
- Cost effective
- Strong technical support
- Formaldehyde free

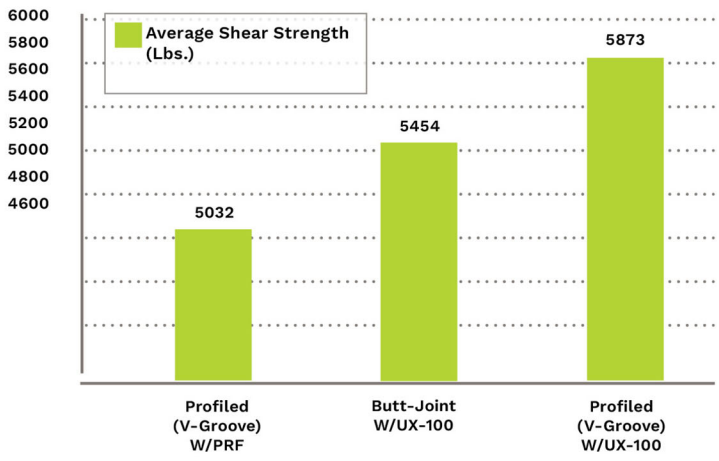
FINGER JOINTING[1]

Finger joint tension strength testing

- Average 8,300 PSI
- Type 5 & 6 Failure Mode

[1] Testing conducted by independent third party

BUTT JOINT[1]



Mass Timber Products

ISOSET HX PRODUCT LINE

- For CLT and Glulam face laminating
- Single-component moisture cure technology
- Formulations available with nominal assembly times between 7 to 80 minutes (times outside this range can be discussed)
    - Primary formulations are HX1010, 1012, 1015, 1020 and 1060
- Meets current North America industry code and burn requirements
- Utilizes a primer to meet the most stringent fire testing
- Domestic supply of code-approved urethane product
- Finger Joint formulations available and ready for customer trial

ATTRIBUTES

- High durability
- Formaldehyde free
- Neutral in color (wood colored bond line)
- Shorter press times
- Heat and fire resistance
- Versatility: Compatible with SPF, Douglas fir and Southern Yellow Pine

BENEFITS

- Fast curing
- Tolerates a greater range of wood moisture content
- Provides a stronger and tougher bond
- North American production

CLT STANDARD CONFORMANCE FOR ISOSET HX ADHESIVES

- PRG-320 Standard for Performance-Rated Cross-Laminated Timber (CLT)
    - ANSI 405
        - ASTM D2559
        - ASTM D1151
        - D7247
        - CSAO112.9; B2 Creep
        - ASTM D1183
        - CSA O177 Small-scale CLT burn
    - PRG-320 Annex B Full-Scale Compartment Fire Test
    - CSA O112.9

GLULAM STANDARD CONFORMANCE FOR ISOSET HX ADHESIVES

- ANSI A190.1 Standard for Structural Glued Laminated Timber (GLULAM)
    - ANSI 405
- CSA 0122 Standard for Structural Glued Laminated Timber
- CSA O112.9

ADHESIVE DESIGN

The outstanding performance of Isoset adhesives reflects a customer-driven culture that strives to provide products that meet or exceed the expectations of the markets we serve. Our experience in urethane chemistry results in effective and efficient adhesive technologies for the engineered wood and mass timber markets.

APPLICATION DEVELOPMENT AND LAB SUPPORT

Bostik has experience with and understands the end-use performance demands of many applications. With our on-site lab support we put this expertise to work to develop products that fit the needs of your specific application.

TECHNICAL SERVICE

Bostik is committed to providing exceptional technical services. Bostik technical service representatives are regionally located to assist customers with adhesives knowledge and expertise. The technical service programs are designed to address the following items:

- Production line efficiency improvements
- Adhesive-related equipment selection assistance
- Adhesive technology recommendations
- Product quality enhancements
- New substrate evaluations

Ready to get started with our solutions and see how they can help your process and products?

Contact a Bostik expert today!

BOSTIK

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Adhesive solutions by ARKEMA