



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 JOINTING¹

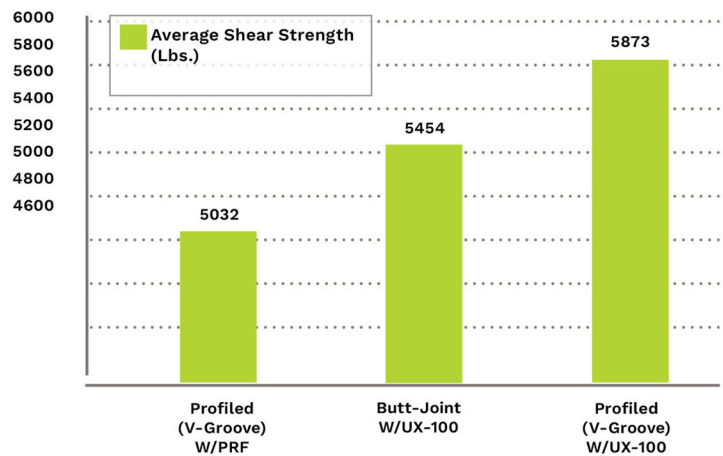
Finger joint tension strength testing

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

¹ Testing conducted by independent third party



BUTT JOINT¹



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
 - CSA O112.9; 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 O122 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.

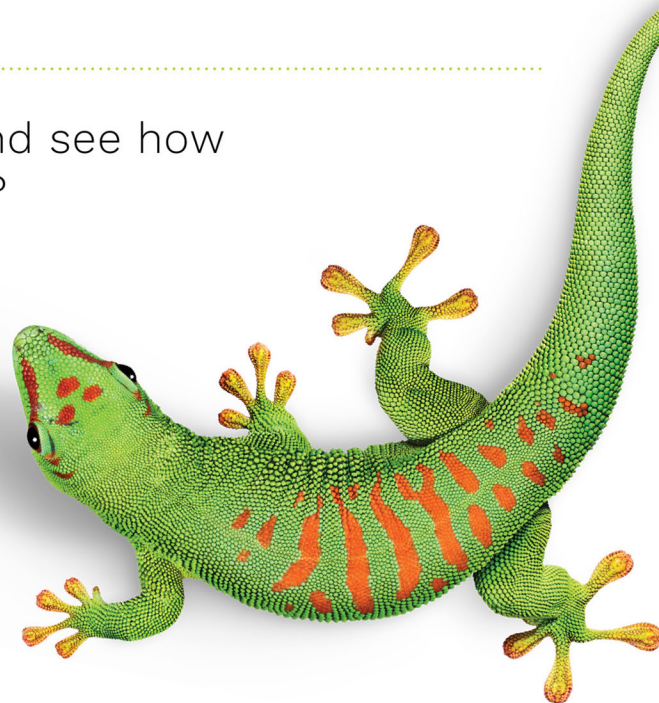
TECHNICAL SERVICE

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

All information contained herein is believed to be accurate as of the date of publication, is provided "as-is" and is subject to change without notice. This is not a warranty, an agreement, or substitute for expert or professional advice. Bostik Inc. expressly disclaims and assumes no liability for the use of the products or reliance on this information. It is the sole responsibility of the user to determine the suitability of any products for user's application(s). NO WARRANTY OF FITNESS FOR ANY PARTICULAR PURPOSE OR ANY OTHER WARRANTY, EXPRESS OR IMPLIED (INCLUDING SUITABILITY FOR USE IN ANY MEDICAL DEVICE OR MEDICAL APPLICATION), IS MADE CONCERNING THE PRODUCTS OR THE INFORMATION PROVIDED HEREIN. The information provided relates only to the specific products designated herein and may not be valid where such products are used in combination with other materials or in any process. The performance of the product, its shelf life, and application characteristics depends on many variables, and changes in these variables can impact product performance. You are responsible to test the suitability of any product in advance for any intended use or application and before commercialization. Nothing herein shall be construed as a license for the use of any product in a manner that might infringe any patent and it should not be construed as an inducement to infringe any patent. Please carefully review the Safety Data Sheet for the product.

The Company adheres to a strict policy that applies to the use of any of its products in medical device applications. This policy can be found at <https://www.arkema.com/global/en/social-responsibility/innovation-and-sustainable-solutions/responsible-product-management/medical-device-policy/> which is incorporated herein by reference and made a part hereof. Except as expressly authorized, the Company (i) has designated specific medical grade compositions for products used in medical device applications and Company products not so designated are not authorized for use in medical device applications and (ii) strictly prohibits the use of any of its products in medical device applications that are implanted in the body or in contact with bodily fluids or tissues for greater than 30 days. The Company does not design, manufacture and/or directly sell any medical devices. The Company does not co-design, or offer assistance to any purchaser of its products, in their design, manufacture and/or sale of products for medical devices. It is the sole responsibility of the manufacturer of medical devices to determine the suitability of all raw material, products and components, including any medical grade products, in order to ensure that the medical device is safe for end-use and complies with all applicable legal and regulatory requirements and to conduct all necessary tests and inspections.

03.12.24

©2024 Bostik. All rights reserved.

Adhesive solutions by **ARKEMA**