

# Isoset™ adhesives

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for construction and  
engineered wood products



We at Ashland are passionate, tenacious, solvers who thrive on developing practical, innovative, and elegant solutions to complex problems in wood bonding, always pushing the boundaries of what's possible, and advancing the competitiveness of our customers in the building and construction industry.

Our people bring exceptional product knowledge, technical support and industry insights to help our customers amplify the efficacy, refine the usability, add to the allure, ensure the integrity, and improve the profitability of their products and applications.

Isofet™ adhesives meet the requirements of ASTM 2559 while being solvent free. These high performance products provide increased strength and clean bond line appearance.

### **Isofet polyurethane emulsion polymer (PEP) adhesive**

Isofet UX-100 series adhesives is a two-part system based on 100 percent reactive polyurethane adhesive blended with conventional Isofet emulsion. This system offers faster green strength and faster complete cure times, while providing excellent bonding properties for less than perfectly machined tolerances. Isofet 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).

### **Isofet emulsion polymer isocyanate (EPI) adhesive**

Water-based Isofet adhesives use a two-part emulsion polymer isocyanate technology to produce bonds with excellent creep, shear and tensile properties. Parts bonded with Isofet adhesive are extremely durable and offer outstanding resistance to moisture and humidity. Isofet 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**

- Extrude
- Roll Coat

### **CURING TECHNIQUES**

- Cold Press
- Hot Press
- RF Cure



### I-Joists

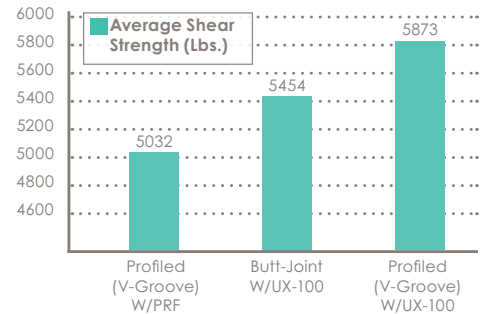
- High performance strength
- Neutral (Wood) color glue line
- Fast cure rate
- Cost effective
- Strong technical support
- Formaldehyde free

### Finger Jointing<sup>1</sup>

- Finger joint tension strength testing
- Average 8,300 PSI
  - Type 5 & 6 Failure Mode

<sup>1</sup> Testing conducted by independent third party

### Butt Joint<sup>1</sup>



## 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 market.

## Application Development and Lab Support

Ashland 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

Ashland is committed to providing exceptional technical services. Ashland 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 efficiencies
- Assist in the selections of adhesive related equipment
- Review and recommend new adhesive technologies
- Improve product quality
- Evaluate new substrates

Ashland is a high-performance organization focused on innovation, commercial excellence, and world-class operations. The people of Ashland maintain a fundamental focus on safe, compliant and responsible operations. They are committed to doing business with integrity and respect for people and the planet. The company fosters continuous growth through a pipeline of innovation and technical excellence, and by capturing value delivered to customers while driving its own cost competitiveness.

Ashland acts as a true partner to its customers, providing customized solutions that add tremendous value to their products or their processes. We relentlessly pursue ways to transform the efficacy, usability, allure, integrity and profitability of our customers' products.

Each of these five qualities can manifest in different ways for different industries. Our customers enjoy better product integrity from ingredients that are of consistent quality, naturally derived, or have less environmental impact than competitive ingredients. Often, our team of solvers help our customers manufacture their products more profitably. Ultimately, downstream users – be they processors or end consumers – benefit from goods that are more effective, more easily used, more environmentally compatible, or more appealing. It is in these ways that Ashland's people around the globe are always solving.

## GLOBAL HEADQUARTERS

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