### **Technical Data Sheet**

# FORTIS AD5045-S



**Fortis AD5045-S** is a single component, moisture curing structurally certified polyurethane timber adhesive used for glue laminated finger jointing. It reacts rapidly with atmospheric moisture, to provide a superior bond for load bearing timber applications.

Features and Benefits	<ul> <li>Structural Glue Lamination Adhesive</li> <li>GLTAA Certificate #007</li> <li>EN302 /AS/NZS 4364:2010</li> <li>Suitable for most hardwoods</li> <li>&lt;4 minute working time</li> <li>Expands as it dries</li> <li>Water resistant</li> <li>Superior adhesion at low dosage</li> <li>Excellent heat resistance</li> </ul>
Typical Applications	<ul> <li>Timber Glue Lamination</li> <li>Finger Jointing</li> <li>Structural Beams</li> </ul>
Properties	<ul> <li>Colour: opaque/green liquid</li> <li>Coverage: 55-110 g/m²</li> <li>Clamp time: 12min @ 20°C (65% RH)</li> </ul>
Pack Size	225kg
Shelf Life	12 months @ 25°C unopened
Safety	<ul> <li>Contains Isocyanates</li> <li>Refer to Safety Data Sheet prior to use</li> <li>Good industrial hygiene practices should be observed at all times</li> <li>Appropriate PPE should be worn including impervious gloves &amp; eye wear</li> </ul>
Storage	Store in cool, dry conditions, out of direct sunlight and in a well-ventilated area. Do not store below 5°C or over 40°C
Surface Preparation	Excellent timber-to-timber contact is necessary to achieve optimum bond strength. A smooth surface achieved through planning or similar technique will aid in providing a good timber-to-timber contact. A good mechanical fit for finger jointing is necessary and internal or bonding pressures for laminating must be at least 1400kPa for optimum performance.  Extensive laboratory testing has shown that to achieve optimum performance with
	<b>FORTIS AD5045-S</b> , a water mist must be applied to the timber prior to glue application. The water application should be approximately 30-50 grams per square meter (GSM) for both adhering faces. This process has been found beneficial for the oiliest of Australian timbers.
Application	<b>FORTIS AD5045-S</b> can be heated up to 35°C prior to pumping to reduce viscosity and improve pumping ability and flow. Ask Fortis for advice regarding the simple set-up of heat rooms.
	<b>FORTIS AD5045-S</b> generally requires lower dosages than traditional resins used for engineered wood products, with dosages of 55 - 140 gsm being common.

total assembly time.

Assembly time tolerances will be mill and substrate specific, being dependent on the wood moisture content, spread rate, temperature of the substrate, temperature and relative humidity of the mill and atmospheric conditions. A good rule of thumb for minimum assembly time tolerances with the recommended water misting is 2-3 minutes

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The cure time of **FORTIS AD5045-S** can be accelerated through the heating of the substrate, glue-line or adhesive itself. Conversely, cure time can be retarded with colder temperatures.

An excellent timber-to-timber contact is necessary to achieve optimum bond strength. If products have not been under pressure for the full time to a testable bond (as in finger-jointing applications), it is important that the finished products are handled gently until a testable bond has been achieve.

#### Clean-Up

Clean tools with acetone or white spirit immediately after use, ie before adhesive has dried. Allow glue to dry then scrape, chisel, sand or cut excess glue. If glue comes in contact with hands, use acetone or white spirits to remove immediately and then rinse off with soapy water.

For further information, including Safety Data Sheets and Technical Bulletins on adhesive applications and surface preparation, refer to the Fortis website <a href="https://www.fortisadhesives.com.au">www.fortisadhesives.com.au</a>.

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