

TECHNICAL DATA SHEET

Fortis AD5045-S – Timber Construction Adhesive

ISSUED: June 2016

INTRODUCTION

FORTIS AD5045-S Timber construction adhesive (Meets EN302 /AS/NZS 4364:2010) GLTAA CERTIFICATE # 007

AD5045-S is a single component, moisture curing, high strength, polyurethane timber finger joining and laminating adhesive. **AD5045-S** reacts rapidly for finger joining in as little as 4 minutes, with atmospheric moisture, to provide a superior bond for load bearing timber applications.

USE

Fortis AD5045-S Timber Construction Adhesive provides superior bonding. Compliant with **EN302**, it can be used as an adhesive for **load bearing timber structures**. Furthermore, it has been certified according to **AS/NZS 4364:2010** and is approved for the use in the load bearing engineered wood products for structural finger joining and laminating applications. It is water resistant making it excellent for jobs requiring extra durability and can be used for both interior and exterior applications.

FEATURES

Fast curing for finger joining or automated beam lamination
Provides excellent adhesion even at very low spread rates
GHS Compliant, Non-toxic and Fibre free
Reliable consistent performance

TECHNICAL DATA

Appearance	Amber to Dark Amber Liquid
Coverage rate	150 – 250 gsm subject to substrate
Working time	4 minutes
Cure time	12 to 18 minutes
Clean Up	Wet: Solvent Dry: Mechanically
Pack Size	18kg, 220kg, 1000 kg
Shelf life	12 months unopened, store in cool, dry conditions.

APPLICATION

SURFACE PREPARATION

- Excellent wood-to-wood contact is necessary to achieve optimum bond strength. A smooth surface achieved through planing or similar technique will aid in providing a good wood-to-wood contact. A good mechanical fit for finger-jointing is necessary and interanal or bonding pressures for laminating must be at least 1400kPa for optimum performance
- Extensive laboratory experiments have shown that to achieve optimum performance with the **FORTIS AD5045-S**, a water mist must be applied to the wood. The water mist applied prior to glue application, **“TO BOTH ADHERING SURFACES”**. The water application should be approximately 30-50 gsm for both adhering faces. (this process has been found beneficial for the oiliest of Australian Timbers)

APPLICATION

- Through Finger joininging combs or special application bars. Small areas can be brush applied
- With the use of a water mist, **FORTIS AD5045-S** is not drastically affected by the moisture content of the wood. Assembly time tolerances will be mill and substrate specific. However, a good rule of thumb for minimum assembly time tolerances with the recommended water misting is 1 - 2 minutes total assembly time.
- **FORTIS AD5045-S** can be heated up to 35°C prior to pumping in order to reduce the apparent viscosity and improve pumping ability and flow. (Ask Fortis for simple setup of heat rooms)
- The cure time of **FORTIS AD5045-S** can be accelerated with heat and consequently retarded with colder temperatures. Heating of the substrate, glue line or adhesive itself can accelerate cure.

- **FORTIS AD5045-S** generally requires lower dosages than traditional resins used for engineered wood products. Typically, dosages as low as 150 grams per square meter (gsm) are common. Assembly time tolerances with **FORTIS AD5045-S** are dependent on the wood moisture content, spread rate, temperature of the substrate, temperature and relative humidity of the mill and atmospheric conditions, etc.
- As previously mentioned, excellent wood-to-wood 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 achieved.

CLEAN UP

Use the following method for the clean-up of **FORTIS AD5045-S**:

- While adhesive is still wet, clean-up with **FORTIS Polyurethane Cleaner C501**
- If Adhesive has cured, soak parts in **FORTIS Polyurethane Cleaner C501** and allow to soak for 24 hours before cleaning. In some instances, if the adhesive has dried mechanical clean-up may be necessary.

PLEASE NOTE: Never attempt to clean-up or flush a system using **FORTIS AD5045-S** adhesive with water as it will only accelerate cure and potentially damage pumps.

For technical support on setup, machinery, pump types please contact the team at Fortis Adhesives and Coatings.

SAFETY

- KEEP OUT OF REACH FROM CHILDREN
- DO NOT spray directly on humans or pets
- DO NOT spray on or near naked flame, pilot light, heat or incandescent material
- Avoid contact with eyes and skin and avoid breathing the vapor or spray mist.
- Store in cool, dry conditions, out of direct sunlight and in a well ventilated area. DO NOT store below 10°C or over 50°C.
- Good industrial hygiene should be observed at all times – Appropriate PPE should be worn including impervious gloves & eye wear.

For further information, refer to the Fortis Material Safety Data Sheet. www.fortisadhesives.com.au

Disclaimer

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