# FORTIS AD822 EPOXY ADHESIVE



**Fortis AD822** is a multi-purpose two component epoxy adhesive which has excellent adhesion to various surfaces including timber, concrete, metal, fibreglass and some plastics. **Fortis AD822** also suitable for priming, sealing and patching in a variety of situations.

Features and Benefits	<ul> <li>Excellent substrate wetting</li> <li>Extended pot life</li> <li>Fast film cure time</li> <li>Chemically bonds to siliceous material</li> <li>Good low temperature cure</li> <li>Blush resistant</li> <li>High solids</li> </ul>
Typical Applications	<ul> <li>Multi-purpose adhesive</li> <li>Timber preservation and waterproofing</li> <li>Fibreglass cloth sheathing</li> <li>Priming and sealing of porous substrates</li> </ul>
Properties	<ul> <li>Clear amber liquid</li> <li>Mixing ratio: 4 Parts A to 1 Part B by volume</li> <li>Work time: 30 minutes</li> <li>Dry time: 6-8 hours</li> <li>Recoat: 8-48 hours</li> <li>Final Cure: 7 Days</li> <li>Colour Stability: Darkens on exposure to UV</li> <li>Application temperature: 5-35°C</li> <li>Service temperature: 0-80°C</li> </ul>
Pack Size	5L Kit
Shelf Life	12 months @ 25°C unopened
Safety	<ul> <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 and 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	Surfaces must be clean, dry and free from dust, oil or other foreign materials.  Metal surfaces should be degreased.
Mixing	Shake Part A and Part B prior to pouring and mixing. Use graduated plastic containers for measuring volumetric quantities. Add 1 Part B to 4 Parts A by volume and mix at low speed with a Jiffy style mechanical mixer or manually with suitable flat stirrer. Mix only enough material for immediate use. Care should be taken to minimize air introduced during mixing. Mix for approximately 1-2 minutes until a smooth and homogeneous mixture is formed, free of striations. Ensure material from the bottom and edges of the pail are sufficiently mixed. Let material stand for 1 minute and then mix for an additional minute.

#### Fillers

**Fortis AD822** may be thickened using various fillers (eg fumed silica, Q Cells, fibrous gluing filler etc) to increase viscosity and improve gap filling when used for gluing, patching or filleting. Mix Part A and B thoroughly prior to adding fillers, add filler in small amounts until the desired consistency is reached and ensure mixture is fully blended before use.

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#### **Thinning**

Thinning of **Fortis AD822** with up to 10-25% xylene or methylated spirits may be performed for priming and sealing applications. Mix Part A and B thoroughly prior to thinning and ensure mixture is fully blended before use.

#### **Application**

Fortis AD822 can be applied with brush, roller, squeeze bottle, pallet knife or other application tools.

#### **Timber Adhesive**

Priming of the surfaces to be bonded with un-thickened epoxy is recommended. Following priming, apply thickened epoxy evenly to both surfaces using a brush, plastic spreader or roller. Only use enough epoxy to bridge the gaps in the timber joint and lightly clamp during the curing period.

#### **Timber Preservation & Waterproofing**

The application of **Fortis AD822** to timber components during marine vessel construction or restoration provides protection against water-logging and rot infestation, a major cause of degradation of timber boats. Thin the first coat with 25% methylated spirits and apply liberally with a brush or roller. Allow 12-14 hours cure time between coats. Lightly sand surfaces between coats. Apply second and third coats without thinning.

#### **Fibreglass Sheathing**

Incorporating reinforcing materials such as fibreglass cloth in the epoxy coating of timber provides strength, impact and abrasion resistance. Such reinforcements may be used for above and below water line in marine applications. Any irregularities, holes or sharp corners should be filled, filleted and faired. Pre-cut fibreglass to manageable size and coat surface with **Fortis AD822** using a brush or roller. One litre of epoxy will coat approximately  $2m^2$  of cloth. Apply the fibreglass cloth to the wet surface and push it into the epoxy using standard fibreglass application tools. Cloth will become transparent when properly wetted out. Perform successive laminations to achieve the desired build. Once desired build has been achieved, the surface should be allowed to cure, sanded and coated with un-thickened and un-diluted **Fortis AD822**. This should then be over coated with a suitable UV resistant topcoat.

#### Sealing and Priming of Porous Substrates

Fortis AD822 is a highly cross-linked epoxy which forms an effective vapour barrier over porous substrates such as concrete. The surface must be clean, dry and sound prior to application. When overlaying concrete with a high-performance coating or bonded timber system, dry diamond grinding is a fast and effective method of preparing and truing up the surface. Fortis AD822 should be thinned 10% with methylated spirits to provide improved rollability, and then applied at 6m² per litre with a brush, roller or broom. If a consistent, smooth glossy film is not achieved in one coat, repeat coats are to be applied. If the concrete appears to return to a dry colour quickly, it may indicate very porous low strength concrete, typically a consequence of overwatering. Rejection (the coating pulling away from areas) during application may indicate contamination or poor surface preparation and that the surface needs to be cleaned more thoroughly.

#### Crack sealing

Fortis AD822 can be used as a crack filling compound in situations where there is no live load movement. If required, open the crack with a grinding disc and construct a temporary dam around the crack area from plaster of paris or adhesive foam strips. Pour un-thinned Fortis AD822 into the crack and top up as the epoxy seeps into and seals the crack. Excess epoxy can be ground off mechanically after curing.

#### Clean-Up

Equipment can be cleaned with xylene or acetone immediately after use. Hardened materials must be removed mechanically

#### Limitations

Avoid working in conditions that could cause condensation to form on the uncured coating, and giving rise to of "amine blush", and potential loss of chemical and physical properties, and potential inter-coat adhesion issues.

### **Technical Data Sheet**

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Moisture and temperature are the key considerations - avoid using this product at temperatures lower that 10°C and take all reasonable measures to minimise the risk of contact with water, moisture or excessive humidity during the cure period.

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>.

Disclaimer - Fortis products should be used in accordance with the information contained herein. Each user should read and consider this information carefully in the context of how the products will be handled and used in the workplace including in conjunction with other products. While the information contained herein is to the best of our knowledge at the date of publication, Fortis makes no representation about the accuracy of the information. If you need clarification or more information, you should contact Fortis Adhesives & Coatings. Fortis products are sold without express or implied warranties, other than as provided by statute, and subject to our standard terms and conditions (provided to customers and available on request). Subject to our standard terms and conditions, and any statutory provisions, Fortis accepts no responsibility (including in negligence) for loss or damage of any nature resulting from the use of Fortis Adhesives & Coatings products or reliance upon the information contained herein.

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