

# POLYMER – TFA X3

## SMP X3 Timber Flooring Adhesive



**Polymer**  
engineering

### **PRODUCT DESCRIPTION:**

POLYMER Engineering TFA X3 - SMP X3 Timber Flooring Adhesive is a single-part, permanently flexible Isocyanate free Timber Flooring Adhesive.

### **FEATURES & BENEFITS:**

- Green Star Compliant
- Isocyanate free
- Stands up well under trowel
- Easy to Apply
- Low VOC
- 90% RH Resistant Formulation
- Vapour Barrier
- Noise Reducer

### **FOR BONDING:**

POLYMER Engineering TFA X3 - SMP X3 Timber Flooring Adhesive is recommended for bonding, Solid Timber Flooring and Engineered Timber Flooring to Concrete and Timber Substrates.

POLYMER Engineering TFA X3 SMP Timber Flooring Adhesive can also be applied onto concrete substrates with underfloor heating.

### **SURFACE PREPARATION:**

Subfloors must be dry, sound, smooth, clean and in accordance with the relevant Floorcoverings Australian Standards.

Subfloors must also be free of wax, grease, oil, polishes, old adhesive, curing compounds, high levels of moisture (> 90% RH) and any other surface contaminants that may affect adhesion. If mechanical preparation is required prepare the floor using recommended preparation methods such as shot blasting, scarifying, diamond grinding, to provide a roughened, clean, sound, solid and open porous surface. The minimum subfloor temperature before commencing installation should be

10°C. Do not use solvents, or acid etching to clean the subfloor.

**For use as a Standard Adhesive:** All concrete subfloors must be tested for moisture content. Relative humidity readings should be determined as per ASTM F2170. Ensure the relative humidity (RH) is below 85% (tested as per ASTM F2170 insitu probe method). If the RH of the sub-floor is above 85% we recommended the use of a Two Part Epoxy Moisture Barrier. Please refer to application instructions below.

### **SURFACE PREPARATION: Continue**

For use as an adhesive, vapour barrier and membrane system (3 in 1): this product can be used onto concrete substrates up to 90% RH as a vapour barrier. If the RH of the sub-floor is above 90% RH we recommended the use of a Two Part Epoxy Moisture Barrier. Contact MJS for suitable product recommendation.

The minimum subfloor temperature before commencing surface preparation and adhesive application is 10°C. Please refer to application instructions below.

Indentations and uneven concrete subfloors should be treated levelling compounds and be in accordance with manufacturer's recommendations.

Where temperatures are less than 10°C or greater than 30°C are encountered, contact our technical staff for advice.

**MOISTURE PROTECTION:**

Concrete slabs can be a source of excess moisture. To prevent moisture migration, apply Two coats RLA Two Part Epoxy Moisture Barrier ensuring the second coat is applied perpendicular to the direction of application of the first coat.

Alternatively RLA PU 95 Single Part Polyurethane Vapour Barrier.

Application of Timber Flooring Adhesive onto RLA Moisture or Vapour Barrier, ensure the adhesive is applied onto the Moisture Barrier within 4 days after the application of Moisture Barrier has taken place and cured. Ensure the Barrier is clean and free from dirt, dust and any other contaminant that may affect adhesion. Concrete slabs can be a source of excess moisture

**CONCRETE SUBSTRATES:**

Subfloors must be dry, sound, smooth, clean, any contaminants that may affect adhesion and in accordance with the relevant Floorcoverings Australian Standards. All concrete subfloors must be tested for moisture content before the application adhesive, primers and barriers.

Indentations and uneven concrete subfloors should be treated with the RLA range of levelling compounds and be in accordance with manufacturer's recommendations.

**TIMBER SUBSTRATES:**

Timber flooring must be solid, sound, clean and free from wax, oil, free from gaps and securely fixed and in accordance with the Timber Flooring Manufactures Instructions and relevant Australian Standards.

Timber Flooring may be coated with a resin waterproof protective layer.

This layer can act as a bond breaker and can affect adhesion to applied finishes, it should be removed by

sanding the subfloor before application of timber flooring underlayment.

Particle board is not an appropriate underlayment for the installation of hardwood / timber flooring of any type.

We recommended installing a suitable timber flooring underlayment and securely fixed and adhered in accordance with the Timber Flooring Manufactures Instructions and relevant Australian Standards.

Please ensure adequate cross-flow ventilation and that the minimum height clearance between earth and the timber flooring is in accordance with the relevant Australian Standards. Failure to have adequate ventilation can result in moisture build up under the subfloor and can compromise the installation of underlayments and floorcoverings.

**VAPOUR BARRIER & MEMBRANE SYSTEM:**

When applying this adhesive onto concrete substrates up to 90% RH as a vapour barrier, ensure TFA X3 adhesive is applied with a 6mm x6mm V notched trowel and 100% transfer of adhesive film is achieved. If the RH of the sub-floor is above 90% we recommended the use of a Two Part Epoxy Moisture Barrier.

### VAPOUR BARRIER PERFORMANCE:

In order for the adhesive to function properly for Vapour Barrier performance.

It is essential the trowelled adhesive is flattened out when the timber is pressed into the adhesive to ensure a homogenous adhesive film forms as a barrier between the subfloor and the timber floorcovering.

It is essential 100% (Transfer) contact between the substrate and timber flooring is required.

Apply adhesive evenly with a 6 mm V notched trowel

<b>Water Vapour Transmission (g/m<sup>2</sup>-d).</b>
<b>5.15</b>

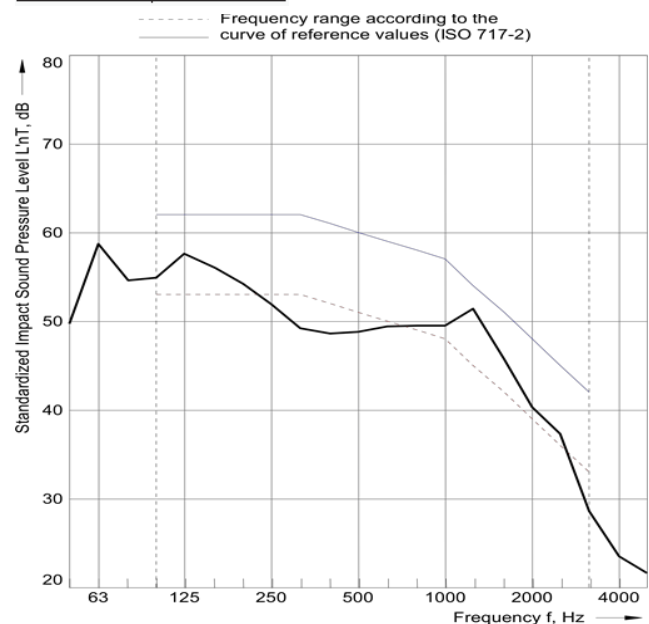
### Noise Reducer Acoustic Performance:

When 100% transfer of adhesive film is achieved, TFA X3 Timber Flooring Adhesive provides a noise reducer barrier over substrates allowing for quick and reliable installation.

Application of adhesive with a 6mm V notched trowel

Subfloor	Floorcovering	Ceiling	Result
Concrete 200mm	Engineered 14mm	13mm suspended plasterboard – no insulation in ceiling cavity	L'nT,w 51 DB

Frequency f Hz	L'nT 1/3 Octave dB
50	47.3
63	55.9
80	54.9
100	55.8
125	56.0
160	55.8
200	53.0
250	51.3
315	49.5
400	48.5
500	48.6
630	48.5
800	49.6
1000	51.1
1250	54.7
1600	51.5
2000	51.1
2500	55.2
3150	53.7
4000	51.4
5000	49.0



Rating according to ISO 717-2  
L'nT,w(Ci) = 51 (-2) dB

C<sub>i,50-2500</sub> = -1 dB

**APPLICATION:****STANDARD ADHESIVE ONLY  
APPLICATION**

Apply adhesive evenly with a 4-5mm V notched trowel - please refer to the timber manufacturer's instructions for specific trowel size at a rate of approx. 1 – 1.2 m<sup>2</sup> per litre.

Install the timber flooring into the Wet Film of adhesive with adequate downward pressure to ensure transfer occurs between the adhesive film and the timber flooring. Ensure 100% transfer is achieved between the substrate and timber flooring, ensure full contact with the adhesive is maintained until full cure is achieved.

For best results timber flooring should be installed within 20 minutes of the adhesives application.

Please note: The Timber may require mechanical fixing or weighting down as the adhesive initially cures.

**NOISE REDUCER & VAPOUR BARRIER  
PERFORMANCE APPLICATION**

Apply adhesive evenly with a 6 mm V notched trowel – achieving 0.5- 0.8 m<sup>2</sup> per litre/ 5- 8 sq per 10lt (15kg Pail)

Install the timber flooring into the Wet Film of adhesive with adequate downward pressure to ensure transfer occurs between the adhesive film and the timber flooring.

In order for the adhesive to function properly for Vapour Barrier performance. Ensure 100% transfer is achieved between the substrate and timber flooring, ensure full contact with the adhesive is

maintained until full cure is achieved, this will enable the vapour barrier to form when fully cured. The timber may require weighting down as the adhesive initially cures. For best results timber flooring should be installed within 20 minutes of the adhesives application.

**CONCRETE SUBSTRATES**

Depending on above application method, Apply adhesive evenly with a 4-6mm V notched trowel - please refer to the timber manufacturer's instructions for specific trowel size.

Install the timber flooring into the Wet Film of adhesive with adequate downward pressure to ensure transfer occurs between the adhesive film and the timber flooring. A minimum of 100% (Transfer) contact between the substrate and timber flooring is required and maintain full contact with adhesive until full cure is achieved.

**TIMBER FLOORING SUBSTRATES**

Depending on above application method, Apply adhesive evenly with a 4-6mm V notched trowel - please refer to the timber manufacturer's instructions for specific trowel size.

Install the timber flooring into the Wet Film of adhesive with adequate downward pressure to ensure transfer occurs between the adhesive film and the timber flooring. A minimum of 100% (Transfer) contact between the substrate and timber flooring is required and maintain full contact with adhesive until full cure is achieved.

It is recommended Installing timber flooring onto timber substrates, Timber Flooring is nailed/ secretly fixed in combination with application of adhesive.

Do not allow heavy traffic for 24 hours.  
Sanding can commence 3 to 7 days after the completion of the entire installation. Please note: Sanding times may vary due to climatic conditions please check with the manufacture.

**CURE TIME:**

Cure times can vary substantially and are dependent on weather conditions such as temperature and humidity. Typically, SMP will form a firm skin in two hours and cure in approximately 24 hours. Hotter and more humid conditions will increase the rate of cure and decrease the skin time, whereas colder climates and lower humidity will decrease cure times and increase skin times.

**CLEAN UP:**

Clean tools and equipment immediately after use with a suitable solvent such as white spirits or alternatively Citrus based RLA Handy Wipes.  
Cured POLYMER SMP Timber Flooring Adhesive can be removed by mechanical means or with RLA Handy Wipes.

**COVERAGE:**

4-5mm V notched trowel notched trowel will achieve approximately 1-1.5 square metres per litre.  
6 mm V notched trowel will achieve approximately 0.5- 0.8 square metres per litre

**CONTAINER SIZES:**

10 litre / 15kg containers

**SHELF LIFE / STORAGE:**

12 months when stored in original unopened packaging  
To be stored in a dry area off the ground.

**NOTES & PRECAUTIONS:**

- Please ensure the flooring is placed into the wet film of adhesive and apply sufficient pressure to ensure transfer occurs between the adhesive film and floorcovering.
- A minimum of 100% (Transfer) contact between the substrate and the back of each individual piece of timber is required and maintain full contact with adhesive until full cure is achieved after a minimum of 24 hours (mechanical fixing or weighing down is recommended )
- VAPOUR BARRIER and NOISE REDUCER PERFORMANCE Apply adhesive evenly with a 6 mm V notched trowel, ensure the timber flooring is placed into the WET film of adhesive.
- Application of Timber Flooring Adhesive directly onto Moisture barrier ensure the adhesive is applied onto the Moisture Barrier within 4 days after the application of Moisture Barrier has taken place and cured.
- Do not walk on laid matting during the first four hours after installation. Avoid air entrapment when making the bond or filling joints. For application details of timber flooring systems, contact the timber flooring manufacturer. Care should be taken to prevent any reaction or damage pre finished timber coatings.
- Do not use adhesive in excessive hot or cold conditions i.e. below 10°C or above 30°C.
- This adhesive will not stand up to hydrostatic pressure or capillary action.
- Ensure your trowel is notched to the manufacturer's recommendations at all times.
- Timber flooring systems must be acclimatised, refer to the timber flooring manufacturers recommendations, prior to the use of this adhesive.

- If in doubt regarding suitability of adhesive, always contact the manufacturer.
- Always follow manufacturer's instructions.
- Do not apply over acrylic or PVA primers/sealers.
- Not recommended to be used in totally confined spaces as requires atmospheric moisture to cure properly.
- Do not expose to water or alcohol based cleaners before full cure.
- Must be fully cured before sanding, allow a minimum of 72 hours.
- Compatibility tests must be first carried out. Due to many forms of timber flooring available today, preliminary adhesion testing should be undertaken by the installer to confirm adhesion. Contact MJS for assistance if required.
- Do not apply over dense burnished concrete surfaces without abrading first to obtain a mechanical key for the adhesive to bond onto.

**SAFETY & HANDLING:**

A Safety Data Sheet is available on request.  
Product is classified as NON-DANGEROUS GOODS.  
According to the WHS Regulations and the ADG Code.

**FIRST AID:**

In use, please ensure that Occupational Health and Safety requirements are observed.

Eyes: Irrigate with water for 10 minutes and see a doctor.

Skin: Wash off with warm water and soap.

If swallowed, give plenty of water. Do not induce vomiting. Seek medical attention.

**WARRANTY STATEMENT**

*RLA Polymers guarantees this product against manufacturing defects and guarantees it to be manufactured to our published specification.*

*We certify that when fully cured this product is suitable for use and will perform as described in our technical data sheet or other published materials.*

*RLA Polymers will replace product free of charge when purchased from any legally verifiable source, and where product is proven to have been stored, handled and installed according to instructions published on our packaging and within the stated shelf life. The installation of all materials must be carried out in accordance with the relevant Australian Standard and the Floorcovering Manufacturers instructions and the floorcoverings must have been subject to normal traffic conditions.*

*Warranty doesn't apply if damage, loss, failure to follow instructions or other circumstances are out of our control. Sufficient time and access to investigate any complaint must be accorded to RLA Polymers.*

*The consumer is responsible for any expenses incurred in making a claim.*

*A claim form can be requested by:*

*Phone: 1800 242 931*

*Email: [info@rlapolymers.com.au](mailto:info@rlapolymers.com.au)*

*Mail: 215 Colchester Road Kilsyth Victoria 3137 (attention Customer Service)*

**DISCLAIMER**

*All Statements and technical information contained herein are based on tests we believe to be reliable but the accuracy thereof is not guaranteed.*

*Users assume all risk and liability resulting from the use of the product and must confirm the suitability thereof by their own tests. Conditions of Sale contain a limited warranty against manufacturing defects.*

*Issued: July 2023*

**AUSTRALIAN CONSUMER LAW**

Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and compensation for any other reasonably foreseeable loss or damage. You are also entitled to have the goods repaired or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure. The benefits under our warranty are in addition to other rights and remedies available to the consumer under the law in relation to the goods and services to which the warranty relates.

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**RLA Polymers Pty Ltd** ACN 004 709 915

Head Office  
215 Colchester Road  
Kilsyth, Victoria, 3137  
Tel: 1800 242 931

New South Wales  
363 Wentworth Ave  
Pendle Hill, N.S.W, 2145

Queensland  
57 Fulcrum Street  
Richlands, QLD, 4077

South Australia  
Unit 2/7 Berger Road  
Wingfield, SA, 5013

Western Australia  
24 Hanwell Way  
Bassendean, W.A, 6054  
Tel: 08 9279 8911