



Product description

Synthetic elastomer based construction adhesive. Nail Free is formulated to bond a wide variety of building materials used in construction.

Recommended uses

- Bonding flooring to timber joists
- Bonding flooring to concrete joists
- Bonding flooring to metal joists
- Bonding wall panelling to plasterboard
- Bonding plasterboard to timber and metal studs
- Bonding fibre cement sheet to timber and metal studs
- Bonding skirting boards and architraves
- Bonding mirrors to walls
- Bonding polystyrene foam

Substrates

- Particleboard / Chipboard
- Medium Density Fibreboard (MDF)
- Fibre Cement Sheet
- Softwoods
- Hardwoods
- Hardboard
- Plywood
- Polyurethane Foam
- Expanded Polystyrene Foam
- Galvanised steel

Features and benefits

- Complies with AS2329 - 1999
- Effective on uneven surfaces - Bridges gaps up to 9mm
- Paintable Exterior / Interior – water resistant
- Reduces squeaking associated with nail ride in floors
- Repositionable up to 20 minutes after application OR
- Bonds instantly using contact method
- Reduces number of mechanical fasteners required to install floors or walls.
- Natural wood colour strong adhesion to metal
- Suitable for non-porous surfaces

Precautions

- Do not use Nail Free where temperatures will exceed 80°C.
- Nail Free is not suitable for immersion.
- Do not expose Nail Free to direct sunlight.
- Do not apply below 5°C
- Use contact method described below to bond two non-porous surfaces
- Do not use Nail Free to bond timber flooring to concrete slabs, except for plywood as described below.

Typical Properties

Property	Typical Value
Open time	1-5 minutes
Full cure	24 hours at 25°C
Repositioning time	<20 minutes at 25°C
Service temperature	0°C to 40°C
Sag resistance (AS2329-1999, Appendix A)	<6mm
Transfer (AS2329-1999, Appendix B)	>75% after 15 minutes
Aging (AS2329-1999, Appendix C)	No chipping or cracking after 500 hours at 70°C
Initial Bond Strength in Shear (AS2329-1999, Appendix D)	>200 kPa
Adhesion Strength in Tensile Shear (AS2329-1999, Appendix E)	>1 MPa
Bond Strength in Peel (AS2329 - 1999, Appendix F)	>40N/25mm

Surface preparation

Read 'Precautions' section of this data sheet prior to use.

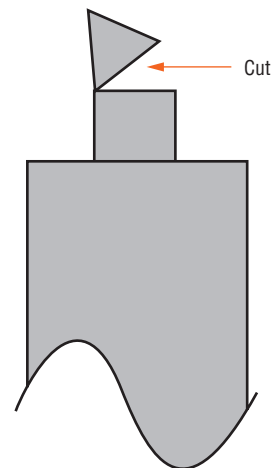
Surfaces must be clean, sound and free of dust, oil, grease, laitance, form release agents, loose paint, adhesives or any agent, substance, material or contaminants that may interfere with the bond or may later affect Nail Free.

Will adhere to damp but not wet surfaces. Ensure that air, substrate and adhesive temperatures are greater than 5°C.

Nail Free dries by solvent evaporation. For applications where solvent evaporation is restricted such as between two non-porous surfaces, the contact method described below is recommended to speed drying.

Application

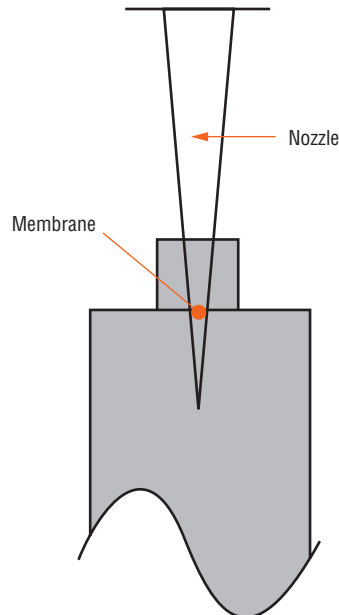
Cut tip off cartridge.



Use tip of nozzle to pierce membrane as shown.



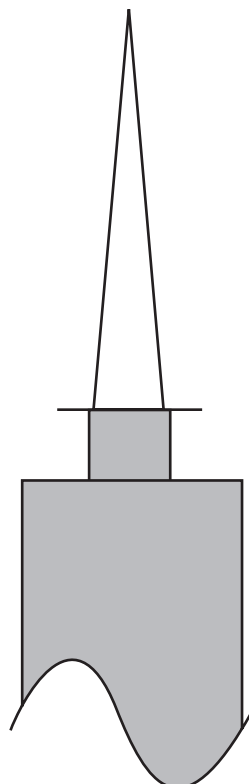
Screw nozzle onto cartridge and load into caulking gun. Cut nozzle tip to desired diameter. Squeeze caulking gun trigger to apply.



Wet Bond Method

This method is for applications where substrates will not move or are supported while the adhesive dries, or where slip is required to properly align or position substrates.

Apply adhesive to one surface and bring both surfaces together. Apply pressure to ensure adhesive contacts both surfaces. Align or position substrate as required. Brace or support until adhesive dries.



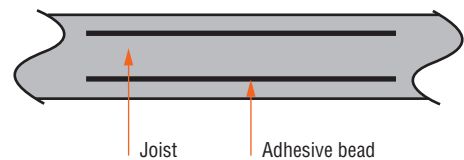
Contact method

This method is for applications requiring a fast bond to prevent substrates moving during cure.

Apply adhesive to one surface then bring both surfaces together. Apply pressure to ensure adhesive contacts both surfaces then pull them apart for about 5 minutes. Carefully align substrates before pressing them back together. Apply pressure to ensure a bond is formed between the adhesive on both surfaces.

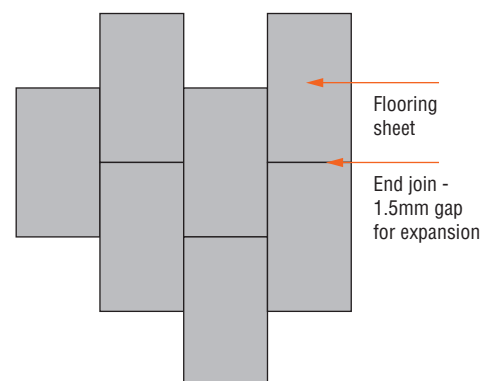
Flooring

Apply 5 mm diameter bead of adhesive to top of joist in a zigzag pattern. On joists where flooring sheets will join, apply two parallel beads of adhesive as shown below.



Fit sheet to joists within 5 minutes of application. Flooring manufacturer's instructions must be followed. If instructions are not supplied, stagger sheets so that end-joints do not meet (as shown below), and leave 1.5 mm gaps between them to allow for expansion.

Nail or screw sheets to joists at 150mm centres around the perimeter and 300mm centres through the middle. Use a putty knife to remove any adhesive squeezed out of the joints between the sheets.



Walls

Apply 5 mm diameter bead of adhesive to studs in a zigzag pattern. Where wall panels meet and join at a stud, apply two parallel beads of adhesive. Fit panel within 5 minutes of application to the batten or stud. Brace and support panels if required until the adhesive has set. To install wallboards over existing plasterboard or fibre cement, apply parallel beads of Nail Free™ about 100mm apart. Working from the bottom up, tilt board until it is in contact with the existing wall and press to ensure adhesive is in contact with both surfaces. Nail Free™ will allow repositioning of wallboards up 20 minutes from application using wet bond method. Alternatively use contact method to obtain instant bond.



Mirrors

Use Nail Free to fix mirrors onto walls. Do not use for mirrors on ceilings. Use contact method described above. Apply parallel beads of adhesive in a zig-zag pattern 20 – 25 mm apart. Alternatively apply adhesive as an X pattern. Do not apply Nail Free around the perimeter of the mirror as this will prevent solvent escaping and will slow down cure. Do not apply adhesive as a blob. For mirrors weighing greater than 5 Kg additional mechanical fastening is required.

Polystyrene foam panels

Nail Free contains an aliphatic solvent, which does not naturally attack polystyrene foam. Damage to foam may occur if the application temperature is too high or the solvent is prevented from escaping. The following directions must be adhered to. Apply Nail Free to polystyrene panels in parallel beads about 1 - 5 mm in diameter. Surfaces to which the polystyrene panels are to be bonded must not exceed 30°C during application and for 24 hours after. Do not apply adhesive as a blob. Apply only to porous surfaces.

Polyurethane foam

Nail Free is suitable for bonding polyurethane foam.

Cure time

- Skin time: 1 - 5 minutes.
- Both surfaces porous: Bond slip resistant after 20 minutes @ 25°C, 5 mm diameter bead.
- One surface porous: Bond slip resistant after 4 hours @ 25°C, 5 mm diameter bead.
- Both surfaces non-porous: Use contact method above for instant bond.
- Full cure after 24 hours depending on conditions

Service temperature

Nail Free construction adhesive will maintain a bond between 0°C and 40°C.

Painting

Nail Free may be painted with water-based paints after it has cured.

Coverage

- 320g will yield 15 lineal metres of a 5mm bead

Storage and shelf life

Storage Temperature: 5°C to 35°C, out of direct sunlight.
Shelf life: 12 months unopened

Clean up

- Uncured: mineral turpentine.
- Cured: scraper

Pack Sizes and Order Numbers

Size	Order number
375ml Cartridge	NFCAG420

Health and Safety

Nail Free is highly flammable. Keep away from sources of ignition. Avoid breathing vapour. Ensure adequate ventilation. Avoid contact with skin and eyes. MSDS available from www.ramset.co.nz or call 0800 726 738.