

 Boundaryline

FLAMEWALL

Install Guide

Fire-Rated Panel C3 and C6 Compliant

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Warranty

Panels require painting with a base coat and top coat and must be painted within 14 days of installation, due to the panels being a porous material.

Water getting into the panel creates a risk of damage from the water expanding and contracting from changes due to temperature.

Failure to paint within 14 days of installation will void warranty.

Recommended primer and paints are on **page 09**.

Consult with your paint supplier when choosing paints for FlameWall.

Handling

Each panel weighs 45kg, this requires some heavy lifting.

Where possible, install FlameWall before any other fence panels, as this prevents any potential catching on any hardware used in the C-post and reduces the rigidity of the posts.

To ensure a safe and easy install, at least 3 people are required for installing the panels.

The panels can be prone to chipping, utmost care must be taken when transporting, painting and installing to preserve the condition of the panels.

Panels must be lifted vertically. If the panels are lifted horizontally, they risk snapping (lift the panels in the same fashion as lifting plasterboard sheets).

If chips in the panel occur, please see **page 09**.

Required Tools/Materials

- Tape measure
- Spade/shovel
- Level
- String line
- Concrete
- Timber for boxing
- Drill
- Sausage caulking gun
- Trowel
- Hammer
- Hand saw

Optional Tools/Materials

- Angle grinder
- Circular saw with diamond blade (for cutting Flamewall panel)
- Reinforcing rebar for concrete base (recommended)
- Gravel (for base course)

Safety Gear

- Safety boots
- Gloves
- Helmet
- Eye protection
- Hearing protection
- Sun protection
- Dust protection

Ensure you have the right tools before installing FlameWall.

Watch the installation video here: <https://youtu.be/tvZOxNwiM4o>

Critical Information

Before you install, it is critical that you read, understand and follow the conditions that are required for FlameWall to comply with C3 and C6 requirements.

Please read the entire Installation Guide before installing FlameWall.

Due to the nature and application of FlameWall, there are strict guidelines that must be followed in order to remain C3 and C6 compliant.

Ensure the details in the Boundaryline FlameWall PS1 are followed when installing.

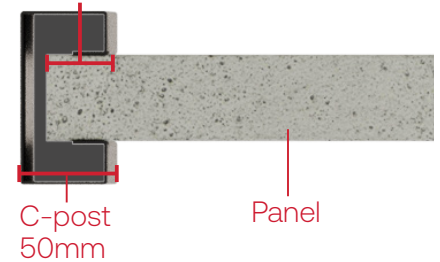
Requirements

It is a requirement for FlameWall to be installed on a raised concrete wall at least 50mm high.

At least 35mm of the panel end is required inside each C-post.

This will need to be accounted for when measuring for the installation of the posts.

Min. 35mm
inside C-post



Safe Zone for Structures

In order for the FlameWall System to protect the spread of fire either to or from a structure that is constructed without fire resistant rated external walls, the structure must sit within the safe zone.

As indicated in blue below, a 25mm clearance must be maintained on either side of the structure from the inside edge of the post and the highest point of the structure must be 25mm below the FlameWall Panel Cap.

The structure must be freestanding. The structure can be as close to the FlameWall System as possible, but it cannot use the FlameWall System for support. You must not affix anything to the FlameWall System.

Attaching Boundaryline fencing running adjacent to the FlameWall System is acceptable, as long as it's attached to the FlameWall C-post, not the panel itself.



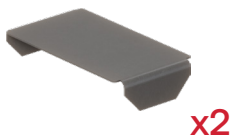
FlameWall Components

Take care when opening and unloading the package. Ensure all components are accounted for and check it is all undamaged.

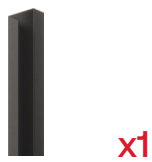


A complete FlameWall System consists of:

1. FlameWall Post Cap



2. FlameWall Panel Cap



3. FlameWall C-Post
100x50x2500mm



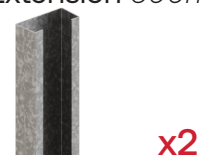
4. FlameWall Panel



5. Screws 10gx16mm



6. C-Post Extension 600mm



7. Screws 12gx25mm



8. FlameWall Edge Primer



9. FlameWall Adhesive



Step 1 | Digging Foundation and Post Holes

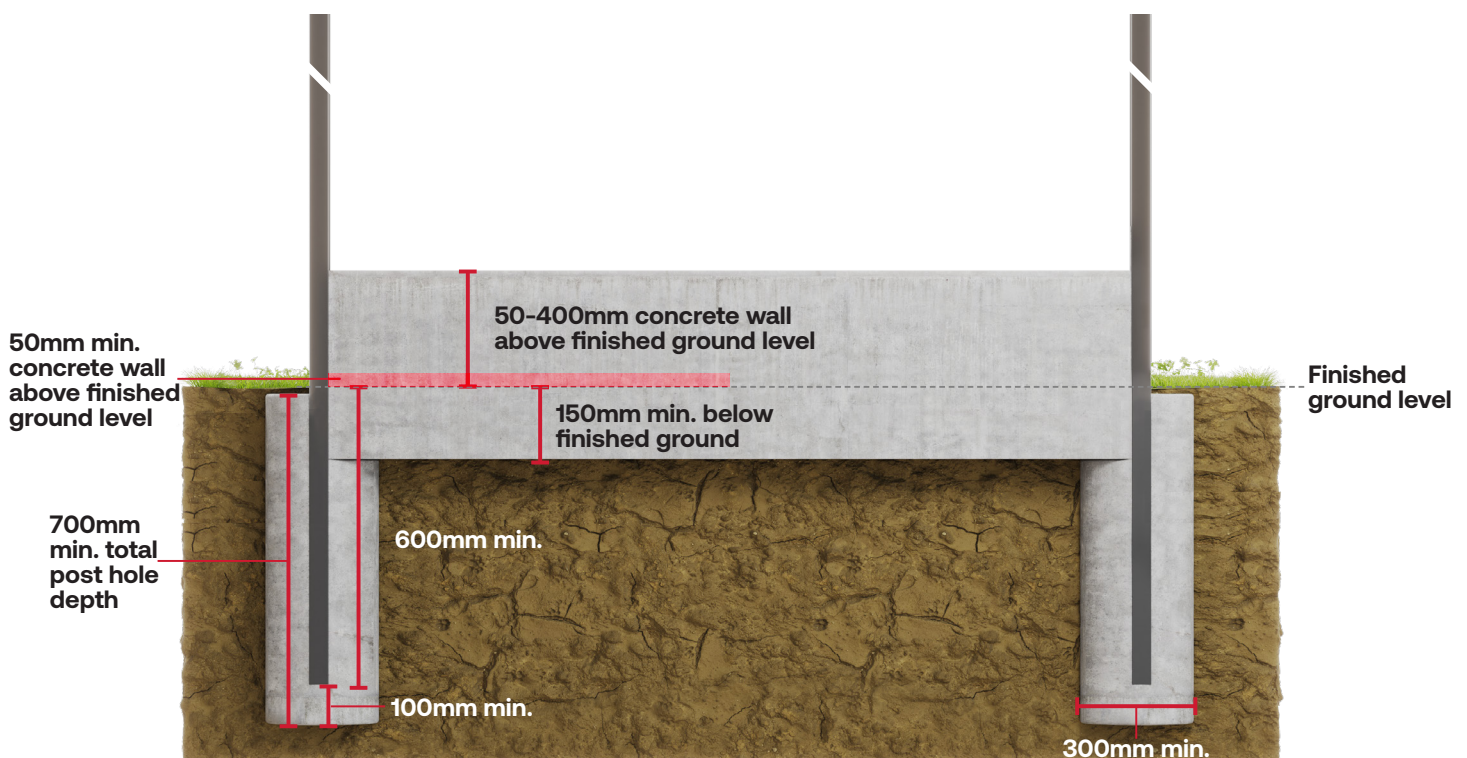
FlameWall is required to be installed onto concrete to meet C3 and C6 compliance.

Installation must be on a raised concrete wall, 140mm wide and from 50 to 400mm above finished ground level, and minimum 150mm below finished ground level.

FlameWall should be installed in 'good ground' as defined by NZS3604.

1. Measure and mark where the post holes and trench will be positioned. The size of all post holes are required to be at least 700mm deep and either 250x250mm square or 300mm in diameter if round.
2. The foundation must be a minimum of 140mm wide and 200mm deep, with minimum 150mm of foundation below the finished ground level and minimum 50mm above the finished ground level (as indicated in red below), and is required to be at least the same length as the panels.
3. Dig the trench and holes for the posts using hand tools and/or a powered auger.

NOTE: When digging the post holes, ensure they don't taper inwards towards the bottom, they need to be either vertically straight and parallel, or be wider at the bottom than the opening.



Step 2 | Pouring Foundation and Installing Posts

1. Box up the trench with timber, ensuring there is at least 150mm below the finished ground, and from 50mm to 400mm above the finished ground.

Adding reinforcing rebar to the concrete is highly recommended but is not required.

Recommended reinforcing: 2x D10 rods that run the full length of the trench with stirrups along the width at approximately 500mm between the centres.



2. Calculate the required height of the posts (min 1850mm, max 2200mm). Any fence higher than 1900mm above finished ground level requires the addition of the supplied post extensions.

3. Insert the post extensions into the posts and fix in place to make the C-posts the required height.

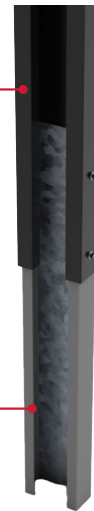
To get the final post height, add the height of the FlameWall panels (1800mm) plus the height of the concrete wall (50mm min, 400mm max) plus 600mm (the minimum amount required inground).

The end with the post extension must always be installed in the ground.

C-Post
2500mm

Post extension slides inside the C-post and is fixed in place before being set into the ground

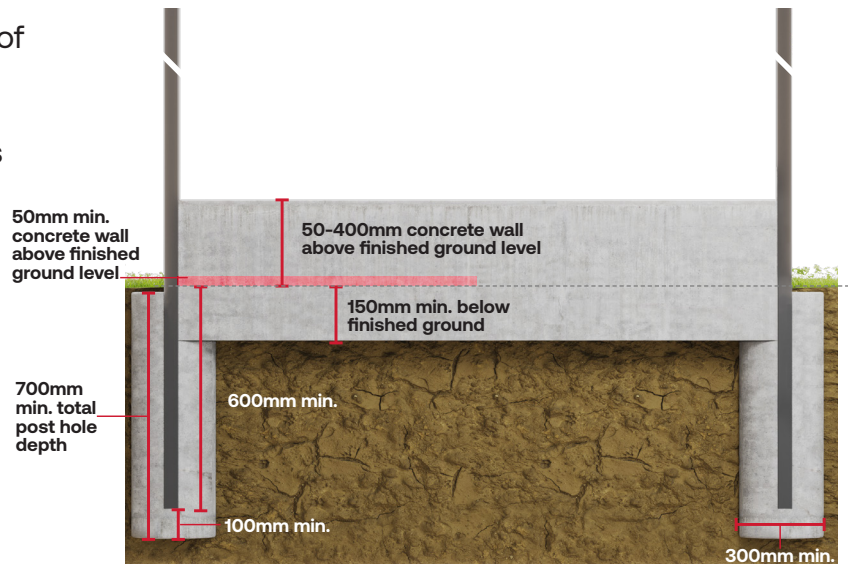
Post Extension
600mm



4. Pour 100mm of concrete in the bottom of the post hole before placing the posts. The post must be set at a minimum of 600mm into the ground. Ensure there is enough height on the posts for the full panel height, plus an additional 10mm for the adhesive, bracket and cap clearance.

5. Place the posts into position and pour the concrete around the posts and along the trench. Ensure the posts are plumb and level, and brace them if necessary.

6. Trowel the surface of the concrete to a smooth, even finish.



Step 3 | Preparing the Concrete and Panels

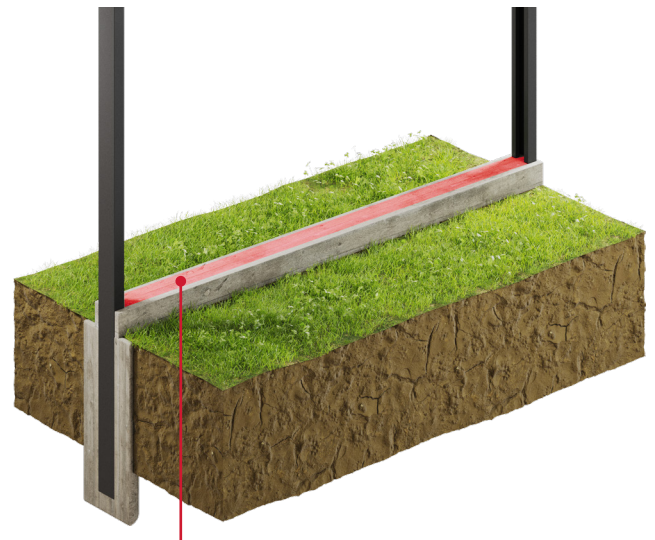
1. Once the concrete is fully cured, ensure it is clean and clear of any loose debris.
2. Apply FlameWall Edge Primer to the top edge of the concrete wall and to the long horizontal edges of all three panels and allow to dry.

All three panels can have the long edges primed at the same time while they are stacked flat.

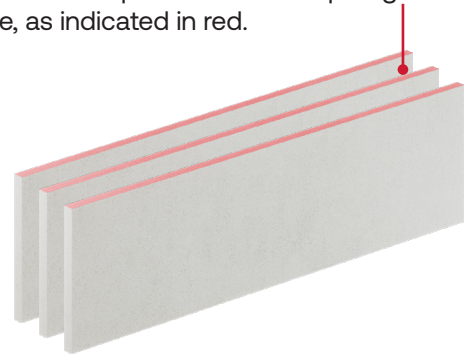
The FlameWall Edge Primer ensures there is proper adhesion of the FlameWall Adhesive between the panels.

NOTE: 60 minutes curing time is recommended before applying the adhesive and the panels must be installed **within four hours** of applying the edge primer.

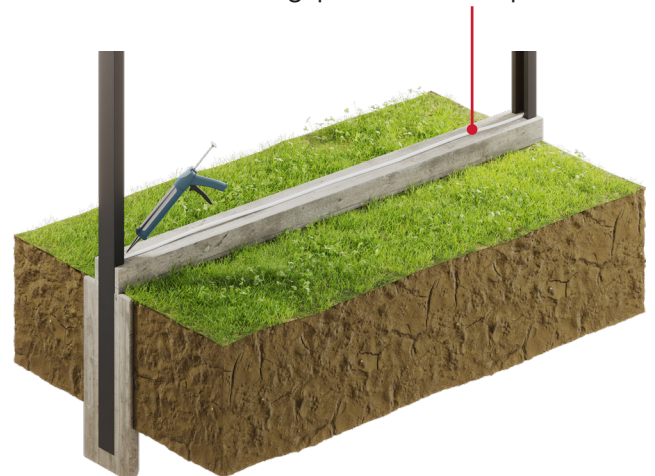
3. Apply a **continuous** generous bead (approximate 10mm radius is recommended) of FlameWall Adhesive along the full length of the primed concrete wall. It is essential for the adhesive to be continuous to prevent any gaps between the panels.



Apply FlameWall Edge Primer to the long horizontal edges of all three panels and the top edge of the concrete, as indicated in red.



The FlameWall Adhesive must be a continuous bead to ensure there are no gaps between the panels



Step 4 | Installing the Panels

Three people are required for installing the panels, due to them being fragile and heavy, and they need to be lifted above the height of the posts to be lowered into place. One person should serve to guide the panel into place.

Take care when handling the panels, as they are fragile and can break or chip if not handled correctly. Keep panels vertical when lifting to avoid any snapping.

1. Gently slide the first panel down inside the C-posts ensuring the panel remains straight and even to avoid the panel catching on the inside of the C-post.
2. Gently press down on the panel to ensure the adhesive has no gaps. Smooth out any excess adhesive to create a suitable finish to the joint.
3. Apply the same continuous bead of adhesive to the top of the first panel and slide the next panel in place, repeating step 2 and 3.
4. Repeat again for the final panel.

NOTE: panels can be cut down, if necessary. Ensure there is a **minimum of 35mm** of the panel ends inside both C-posts.

To do this:

1. Place the panel on a flat surface, ensuring that it is well and evenly supported.
2. Measure and mark where the panel needs cut.
3. Using a skill saw or angle grinder with a diamond masonry blade, carefully cut along the marked line. If using a skill saw, a fence/guide is recommended to keep the cut straight.

NOTE: There is light steel reinforcing mesh inside the panel. Cutting the panel will create a lot of dust, use appropriate PPE, and, if possible, use a dust extraction system.



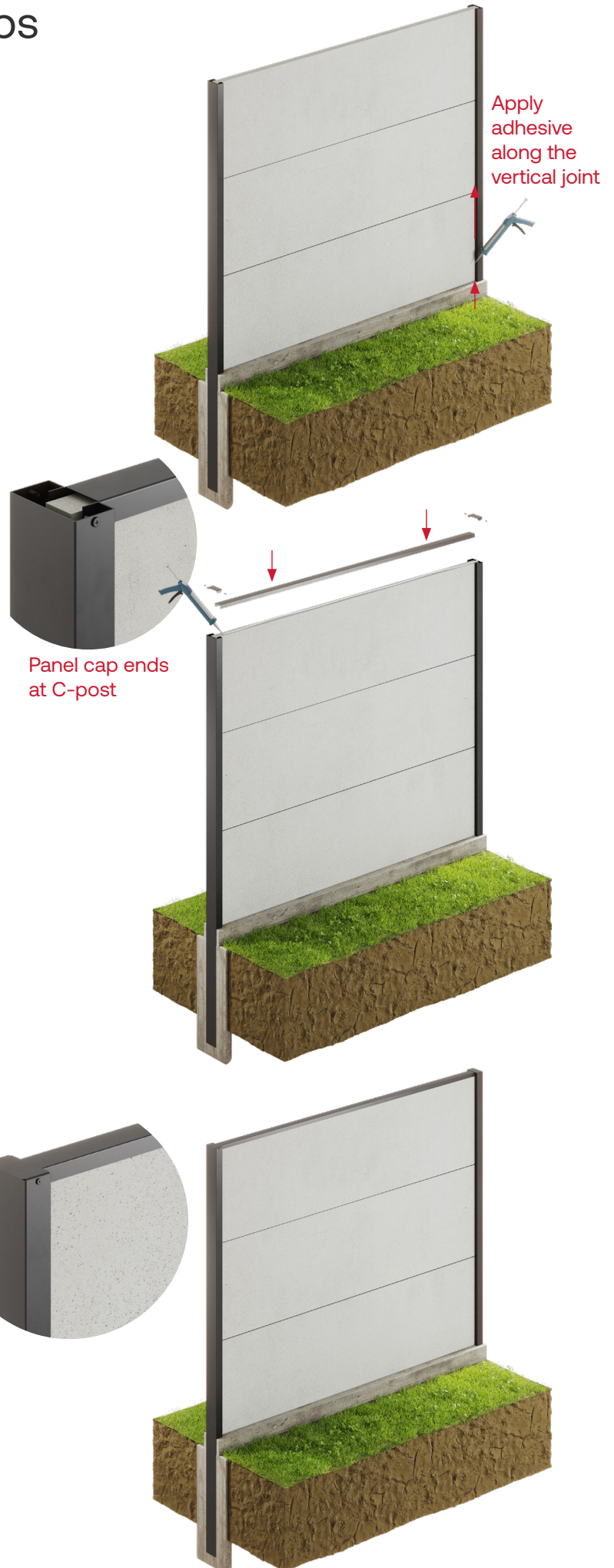
Step 5 | Installing the Caps

1. Apply a continuous bead of FlameWall Adhesive along the length of the vertical joint between the panels and posts on both sides of the fence, and along the bottom edge that is in contact with the concrete wall. Smooth out the adhesive to create a suitable finish to the joint. This will seal the edges of the panels. Avoid getting excess adhesive on the powder coated posts.
2. Measure the distance between the FlameWall C-posts and cut the panel cap to suit. The panel cap does not sit inside the C-posts.
3. Remove any resulting swarf from the panel cap and posts as this can cause the components to rust. It is good practice to paint any exposed metal edge with touch up paint to avoid rust.
4. Apply another continuous bead of FlameWall Adhesive along the top of the panel and place the capping on top of the panel.
5. Attach the post caps to the top of the posts over the panel cap using the provided tek screws.

NOTE: Take care when cutting any powder coated component.

A hack saw or power saw with a sharp diamond tip blade is recommended to avoid damaging the powder coat.

Using an angle grinder or abrasive cut-off wheel to cut powder coated components is not advised as it can burn the powder coat finish.



Step 6 | Painting the Panels

FlameWall Panels require a base coat and top coat of paint following installation. Please note; paint is not included in the FlameWall System Kit.

If the panels are not painted within 14 days of being installed, the warranty will be voided.

Ensure the adhesive is fully cured prior to painting, refer to the adhesive manufacturers advice based on your region and climate. The panels must be clean and dry before painting. If the panels get wet during installation, or prior to painting, you must ensure the panels are thoroughly dry before painting.

To paint FlameWall, the following paints are recommended.

Recommended Base Coat Option

1. Base Coat

A base coat is essential to ensure the panel is completely waterproof, as the unpainted panel is porous.



Recommended Base Coat
Dulux Acratex® Green Render Sealer.

Recommended Top Coat Options

2a. Smooth Top Coat

An untextured paint can be used for a smooth concrete style finish.



Recommended Paint
Dulux Acratex®
AcroShield®

2b. Plastered Top Coat

Alternatively, a textured paint can be used to create a plastered/rendered finish for FlameWall.



Recommended Paint
Dulux roll on Acratex®
AcroSand

Paints are not included in the FlameWall System Kit. All recommended paint options will be available through your nearest Dulux Trade Store.

Consult with your paint supplier when choosing paints for FlameWall.

If chips in the panel occur, use a suitable exterior masonry repair product.

Watch the installation video here: <https://www.youtube.com/watch?v=HIZylek-Leg>

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Please note: This document is only intended to be a general guide, as every property & situation is different.

Any installation work, including the use of power equipment is completely the responsibility of the person(s) installing.

All persons using power equipment must be trained & certified to use the equipment & must wear all applicable personal protection gear.

Terranota Ltd cannot accept any responsibility for any faulty installation or damage or injury arising from installation work.