



nzfoam
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Spray Foam Installation Guide

Version 3.0



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What is Spray Foam Insulation Made From?

Our **ORANGE** range of Spray Foam insulation is essentially a semi rigid foam plastic.

Kind of like the ‘big daddy’ of expander foam in a can – but much faster, denser, uniform in the cell structure. Not to mention awesomely good at what it does!

The on-site combination of two products sprayed in-place creates an almost instant closed cell polyurethane foam which expands and adheres into all nooks and crannies.



What is Spray Foam Insulation Made From?

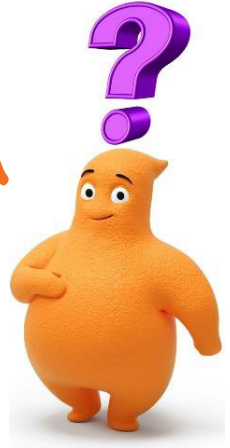
Our ORANGE range of Spray Foam has several main ingredients which have been chosen due to their quality and low environmental impact.

The main base product is oil. The oil is derived from two main source materials:

- **Soya oil:** Grown annually in arid areas and of no value as a food crop
- **Recycled plastic:** Mainly bottles, which make up over 20% of the product.

The final main ingredient is the hardener; which once combined with the other ingredients, is almost instantly transformed into a chemically inert, stable and Ph-neutral insulation product that will not reduce in performance over the life time of the building.

Frequently Asked Questions.



1. When in the build process should we get you guys in?

Timber walls: On a standard build, we come in after the sparky and plumber and before the plaster board goes on. Pretty much business as usual.

Ceilings: As long as there's room we install after the installation of the plaster board, before or after the sparky. (more on this in section 5 of this booklet).

Skillion Ceilings and Underside Rooves: These are done before the sparky, plumber, ventilation guys and ceiling battens.

Underfloor: We prefer to do before the plumbing waste pipes are run as this gives us a better chance of a uniformed insulation. If possible, the protrusions through the floor should be in so we can seal around them.

2. The sparky wants to know if this will affect his wiring, does he need to wrap his wires or put in the expensive purple stuff?

The simple answer is no. Unlike polystyrene insulation, polyurethane foam insulation products have no plasticisers as part of their makeup. Therefore there is no issue with plasticiser migration which is where the issue lies.

Frequently Asked Questions. (continued)

3. Now the plumber's been on the phone asking the same question about his pipes!?

Again, the answer is no, the spray foam will not degrade the plumbing hardware! In fact, everything will be locked in place eliminating any water hammering, noisy pipes and the sound of water running behind the wall. Also great for silencing that upstairs drainpipe!

4. Can other trades be inside when you're spraying and if not how long do we need to be out?

Like paint spraying, it's not a good idea to be around without the correct PPE while we're spraying. Like paint, it's all good when it's dry, not so much when floating around in the air!

Where possible we can isolate areas with plastic but normally, we ask for a day or two to complete the job. Most builders have work to do on the outside they can carry on with.

Generally, a good rule of thumb is work inside can resume the following day after completion. (more on this in section 4 H&S)

5. Do you need anything special from us, like extra power etc?

These days our trucks are set up to be self-sufficient basically they are turn on and spray with built in generators and compressors.

Health & Safety.

At NZ Foam we take health and safety very seriously. We have a robust health and safety policy which is regularly updated. Our team are fully trained on the use of all of our safety procedures.

We insist on the use of all the appropriate PPE supplied to our guys and routinely have staff health and safety meetings to keep up-to-date and improve where we can.

Our vehicles are fully fitted out with fire extinguishers, first aid kits and disposable PPE. A folder of all our MSDS can be found in the cab of our trucks.

Upon arrival on the first day, we will discuss any site-specific health and safety requirements while being inducted.



What We Require before Installation.

Before we arrive on-site, we would expect the area to be cleared out and free of any obstructions ready for masking up and spraying. Other trades are to be vacated from the spray area for the duration of installation.

ELECTRICIANS

Electricians are to have wiring running bunched together where possible. It is preferable to have wiring in the ceiling running along the trusses and any loose wires not yet in their finished location to be coiled up and taped to a truss so as not to be accidentally buried.

In the case of LED down-lights being fitted; we can supply fire-proof bamboo covers which can be stapled over the downlight holes once the wire is in place. This gives sufficient cavity for the lights to be fitted. Batten light wires can either be in place or the wire can be drilled down through the foam at a later date.

Wires need to be left protruding from the flush boxes. Our team will mask these up to eliminate accidental foam ingress.

In the case of strap and line walls or other shallow cavity framing, it is necessary to have the wiring clipped tightly to the timber to eliminate wire floating outside of the timberline as it will be necessary to shave the foam flush. Any loose wiring may be damaged as a result.

PLUMBERS

Plumbers are to make sure all plumbing is clipped back and do not protrude past the studs. At the time of spraying, we require water in the pipes but no pressure to eliminate the chance of over pressurizing due to temporary exothermic heat while spraying.



WHEN INSTALLING TO WALLS IN STANDARD CONSTRUCTION

Application of the spray foam is done at the time most insulations are done. After the services are in and before the pre-line inspection.

We strongly recommend any structural fixings

such as floor anchor points etc be photographed as these will permanently disappear only insulated. The pre-line inspector will require proof of these.

We prefer to have a rigid barrier in place to spray against as this give a more uniform overall insulation barrier and eliminates the possibility of accidentally bulging into any air cavity. However, we can spray onto a building wrap. In this case we require the stapling to be done correctly and blue strapping to be used horizontally between the dwangs to eliminate bulging. When using a building wrap, we require the external cladding to be in place before insulation.

Although it is preferable to have the windows in place before we spray it is not essential. Any other requirements are in the previous sections of this booklet.



WHEN INSTALLING TO WALLS IN A STRUCTURAL PANEL BUILD

Application of spray foam is done after the installation of the services and before the installation of the windows.

We require the vertical wall battens to be 400mm

centres where possible. Any required scaffold is to be erected in such a manner as to be safely usable by our sprayers.

Any other requirements are in the previous sections of this booklet.

What We Require before Installation. (continued)



WHEN INSTALLING UNDERFLOOR

Application of spray foam underside of a floor requires good access and a minimal gap between the floor and the ground level of 700mm. The ground is to be clear of debris.

We prefer at the time of spraying for the service penetrations to be completed, although we prefer the drainage pipes to be run from the vertical drops to the foundation post spraying as this allows us to perform a more complete and consistent layer. Same as above for ventilation ducting, as this inevitably limits access to allow us to perform a complete finish.



WHEN INSTALLING ON TOP OF THE CEILING

Spraying of the top side of the ceilings is done once the ceilings are in place before the stopping has been done. Where possible we prefer the ventilation system to be installed after spraying.

Wiring can be in place or done after, although the less penetrations through the insulation after spraying is preferable for air tightness.

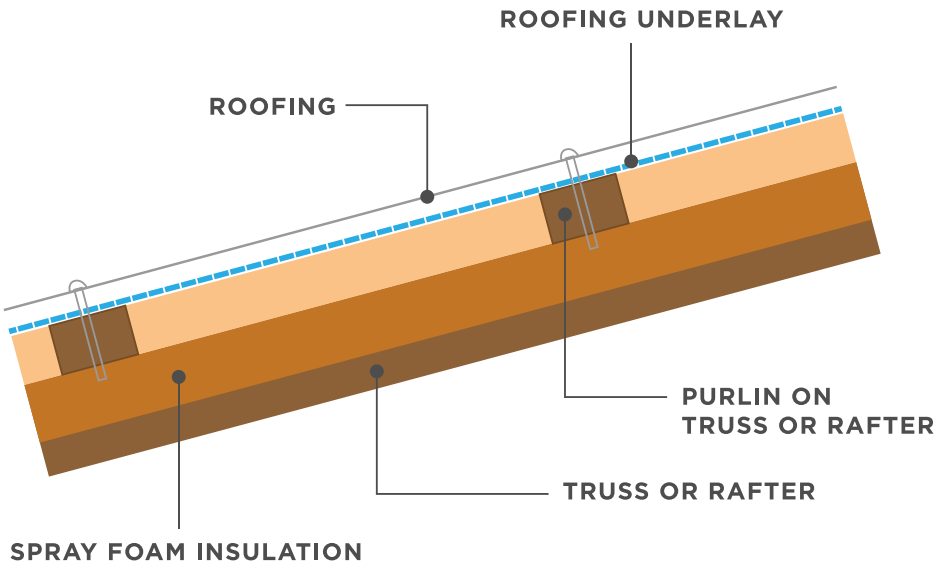
Plumbing should be in place with no pressure in the lines at time of application. Advantages of spraying before other trades performing their installs is a safety factor as the foam can be walked on after a couple of hours without harming or falling through the ceiling.

WHEN INSTALLING UNDERSIDE OF ROOF / SKILLION ROOVES

Spraying the underside of the roof including skillion ceilings is completed from the floor prior to the installation of the ceiling battens.

As per the Codemark there is no requirement for an air cavity gap between the roofing system and the insulation due to the air and vapour barrier properties of the insulation..

INSULATION TO AN IRON ROOF



SPRAY TRUCK DIMENSIONS

Our spray trucks come in three different sizes; that being said, they are spread all over New Zealand so often we don't get a choice of the size we bring to site.

We require the rear of spray trucks to within 55m of the farthest area to be sprayed. Below are the dimensions of the largest truck to help with availability to the site.



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