

Welcome to Kiravans:

Your Trusted Guide to Campervan Lining & Insulation

Whether you're a seasoned converter or just starting your van life journey, you've landed in the right place. At Kiravans, we're all about helping you make your campervan feel like a true home on wheels, with a touch of privacy and comfort, no matter where your adventures take you.

Good to know:

We have supplied over 225,000m of carpet lining material around the world. That's enough material to stretch from Oxford to Liverpool, or Bristol to Sheffield! Kiravans are experts in campervan lining!

Who We Are:

We're Rob & Mike, a duo who've turned a passion for campervans into a mission: to provide high-quality, easy-to-install lining and insulation materials that fit just right. From our days running a campervan rental fleet, we've learned a thing or two about what makes a van feel cozy & private, while remaining robust and functional. We're here to share that knowledge with you.

What We Offer:

- **Top-Quality sound proofing materials:** Designed to stop those metal panels from vibrating and generating unwanted noise.
- **Top-Quality van lining materials:** stretchy carpets that make life easy when fitting carpet for the first time.
- **Straight-Talking Advice:** Lining and insulating your van shouldn't be a puzzle. We offer clear, no-nonsense guidance to get you set up without a fuss. Read on.

Our Promise:

We believe in straightforward, honest advice. No flowery language, no beating around the bush - just practical tips and real solutions. We focus on making each step of your DIY project a bit easier and a lot more enjoyable.

In this guide you will find:

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Introduction

There are lots of ways in which you can insulate and line your van, but if you ask 10 industry experts about the process, you will most likely receive 15 different opinions. It can be a very divisive issue, and everyone has their own ideas and preferences for what they want to achieve and how. The thing is, the advice you might read might be great for the intended purpose of the advice givers vehicle, but is it right for you?

This guide sets out to explain the Kiravans methodology for lining and insulating your van with a rough guide to the required quantities. We hope to guide you through the decision making process and help you understand where you can get best value from the process to suit your needs.

I am sure you won't just read this guide. When researching the subject and watching YouTube videos, we would encourage you to think about the differences between your van and the one on show (in terms of van height, construction, volume of air, number of windows) and the intended use, which the presenter often does not mention.

Spending time and money on some parts of the process will give you better results, but there is a law of diminishing returns which will come into play. For some parts of the job, less is more and it perhaps pays to concentrate on some areas more than others.

The following suggestions are based on what we think might be typical campervan use for most people. The rough calculations are based on lining the walls and doors for a typical van with 2 rear cabin windows plus tailgate or barn door windows.

Vehicles:

- **Small** (Renault Kangoo / VW Caddy)
- **Medium** (Opel Vivaro / Renault Trafic / VW T4/T5/T6)
- **Large** (Sprinter/Crafter or Ducato/Boxer)



Typical Use:

- Up to 3-4 weeks of holidays per year, and
- Up to 7 or 8 weekends away between April to October

This is the way we do it at Kiravans, but if you have a larger vehicle and/or are living in your van full time, this all still applies to you, but you may want to think about how your lifestyle or van size changes the thought processes.

Videos and Language Translations

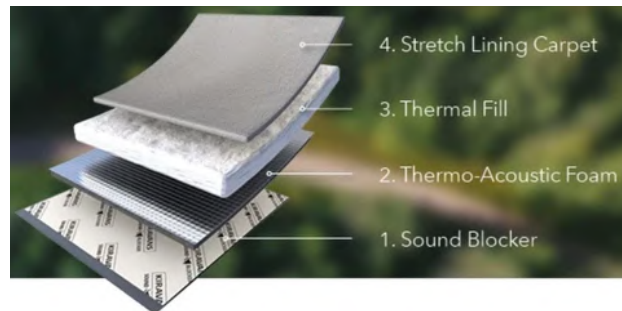
This guide is accompanied by various instruction and discussion videos. While they are all in English, it is possible to generate subtitles in your preferred language to make them simpler to follow.

- **To switch on subtitles:**
Click on the subtitles icon at the bottom right panel of the video 
- **To change the language:**
Click on the setting icon at the bottom right panel of the video 
Select **Subtitles/CC > Auto-Translate > [Choose Your Language]**

Kiravans 4-step Lining Process

At Kiravans, we talk about a 4-step process for lining your van. The individual components we recommend are:

- Sound Blocker
- Thermo-acoustic Insulation foam
- Thermal Filler
- Carpet lining



Sound Blocker by KIRATEK

Metal panels, like the ones your van is constructed from, vibrate when struck by an object, or just by air moving across them at speed. This vibration creates unwanted noise when your vehicle is on the move.



This is much the same principle as the noise made by a drum kit. Considerate drummers will place towels over the kit to reduce the noise for their neighbours when they practise at home. Similarly, just as pinching a drum cymbal will dull the sound after it has been struck, placing some sound blocker on the panels of your van will achieve the same result. You don't need to cover the entire panel with the material, just enough to limit the vibration. Ration the material and spread it around the flat panels on your van. This will save weight, reduce costs and also improve fuel efficiency.

Metal panels with built in undulations, such as the floor or the wheel arches, don't vibrate to the same extent as flat panels, so the sound blocker will not be as effective in these areas. You can add it there if you like, but it is probably not great value for money.

Sale quantities: Multiples of 10 sheets

Dimensions: 400mm x 230mm x 2mm per sheet

Quantity required: Small 10 sheets / Medium 20 sheets / Large 30 sheets

Additional Resources:

[Watch Video \(Eng+Subtitles\)](#)

[Buy Sound Blocker](#)

Thermo-acoustic Insulation foam by KIRATEK

The purpose of this insulating layer is to reduce the transmission of sound either into, or out of your van, while also insulating you from the temperatures outside, whether that be heat, or cold.

The product usually comprises an outer foil layer to retain the warm air in your van and reflect heat from the outside, and an inner closed foam cell structure. The air trapped inside the 'bubbles' will heat up trapping the warmth, and the closed cell won't allow any moisture to be trapped.

This is a material you want to get everywhere you can easily access. If you are so inclined, you can install double layers. Don't worry too much about the voids you can't easily reach, as they will be taken care of by the thermal filler.

Some people like to include the wheel arches. If you have enough material there is no harm in it, but as they are usually hidden behind a cupboard or under the bed, it is probably not so important. Also, if your wheel arches are visible then you probably don't want to stick foam to them as the finished product, when carpeted, would not look as neat.

Sale quantities: Multiples of 15 sheets (=6m²)

Dimensions: 100cm x 40cm per sheet (total 3m x 2m per pack of 15)

Quantity required: Small: 15 sheets / Medium: 30 sheets / Large: 45 sheets

Additional Resources: [Watch Video \(Eng+Subtitles\)](#) [Buy Thermo-Acoustic Foam](#)



Thermal Filler (35mm)

This is the down jacket insulation layer. Again, it has a low Thermal Conductivity number (K-value) which will help keep the heat in. Some people prefer to use solid thermal insulation as some of these materials are more efficient, but we find the filler is much easier to work with when you want to get it into lots of gaps and around curves in the frame of your van. Also, solid insulation boards tend to squeak when the van is moving.



Stuff it everywhere you can on the walls and cavities remembering to try not to compress it too much. The air that fills it is the insulation. Depending on your van type and intended use, you may or may not wish to add this material to the roof. For example, a VW T5/6 van does not have enough space to put a layer of this between the roof lining panels and the metal van roof.

Sale quantities: 10m roll (optional 2x cans of adhesive)

Dimensions: 10m x 70cm per roll (=7m²)

Quantity required: Small: 1 roll / Medium: 1 roll / Large: 2 rolls

Additional Resources: [Watch Video \(Eng+Subtitles\)](#) [Buy Thermal Filler](#)

Carpet Lining

This is the aesthetic layer to make your van look nice. It will of course also provide some additional sound and temperature insulation.

Our 4-way stretch lining is a wonderful material and really easy to use. You may hear that some professionals prefer Veltrim

which is a thicker, more dense liner. It is a great material for carpeting larger, flatter areas, but it does not stretch and can look messy if not fitted correctly. You are probably doing this job yourself for the very first time. Choosing a stretchy material means that it is very forgiving and will easily work its way into the curved gaps, wheel arches, and contours of your van. You will need a little patience, but you will be happy with the high quality finish you can achieve at your first attempt.

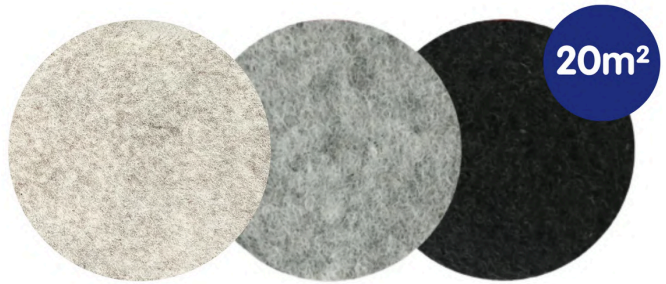
Our carpet lining material is UV resistant, doesn't rot and doesn't hold moisture. It is available in 8 colours (wheat, blue, stone, silver, smoke, graphite, anthracite or black).

Sale quantities: Sold per metre with optional adhesive

Dimensions: 1m x 2m

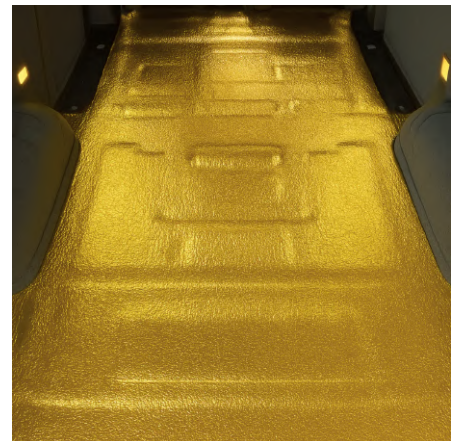
Quantity required: Small: 5m roll / Medium: 10m roll / Large: 15m roll

Additional Resources: [Product Video \(Eng+Subtitles\)](#) [Installation Video \(Eng+Subtitles\)](#)
[Buy Carpet Lining](#)



Gold Underfloor Insulation

This product forms a 5mm insulation layer between your ply flooring and the metal floor of your van and provides several benefits to your van. Firstly, it helps smooth out minor imperfections in the metal floor beneath, giving your ply flooring a neater and more even base to sit on. It then serves to preserve heat on cool evenings making the van feel less cold underfoot. The gold aluminium foil vapour control barrier also helps reduce the risk of moisture build-up under your ply flooring. Finally, it also reduces road noise and vibrations from under your van when you are on the road.



Sale quantities: Sold in 1m lengths optionally with adhesive

Dimensions: 1m x 1m per roll (=1m²)

Quantity required: Small: 4m roll / Medium: 7m roll / Large: 10m roll

Additional Resources: [Buy Gold Underfloor](#)

Altro Walkway Safety Flooring

This product is a tough, anti-slip vinyl floor covering available in a range of colours. Hard-wearing and versatile, it has been used in a wide variety of settings for over 30 years, making it a great choice for campervans, motorhomes and van conversions.

This commercial-grade flooring is 2mm thick, weighs approximately 2.6kg per sqm, which makes it great for reducing sound and vibration. It is supplied from a 2m-wide roll cut to the length you choose.

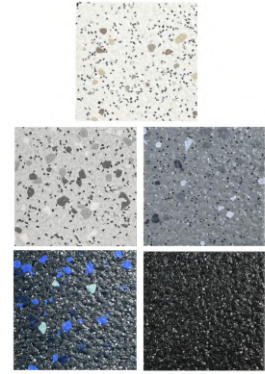
Available in 5 colours: Black, Nightfall, Whale, Blizzard, Winter

Sale quantities: Sold in 2-5m lengths optionally with adhesive

Dimensions: 2-5m x 2m x 2mm (50cm increments)

Quantity required: Small: 2m / Medium:3m / Large: 4-5m

Additional Resources: [Buy Walkway Safety Flooring](#)



Altro Wood Safety Flooring

This product is a tough, anti-slip vinyl floor covering available in a range of colours. Hard-wearing and versatile, it has been used in a wide variety of settings for over 30 years, making it a great choice for campervans, motorhomes and van conversions.

This commercial-grade flooring is 2mm thick, weighs approximately 2.6kg per sqm, which makes it great for reducing sound and vibration. It is supplied from a 2m-wide roll cut to the length you choose.

Available in 5 colours: Slate Oak, Worn Oak, Washed Oak, Manor Oak, Urban Cherry

Sale quantities: Sold in 2-5m lengths optionally with adhesive

Dimensions: 2-5m x 2m x 2mm (50cm increments)

Quantity required: Small: 2m / Medium:3m / Large: 4-5m

Additional Resources: [Buy Wood Safety Flooring](#)



HT Adhesive

This product is particularly suited for bonding fabrics such as carpet to wood, metal, plastic or rubber. It exhibits high temperature resistance up to 90°C, which means it won't melt when your van metalwork gets really hot in direct sun.

You will need approximately 1 can per metre of carpet.

Additional Resources: [Buy HT Adhesive](#)



Tools

When fitting lining and insulation to your van, it pays to have the best tools to hand.

Trim Removal Tool Set

Lining and insulating your van is a fiddly job. Every other van we have done, we end up with cut fingers, damaged headlining and scratches all over the place. Then we found these and the trim clips just pop-off now without any damage.



The variety of shapes means you can get to all the clips just as easily. They are also great for removing and refitting the plastic trims around door pillars etc.

Additional Resources: [Buy Trim Tool Set](#)

Sharp Blades

When lining your van, you are going to be doing a lot of cutting. You will go through a lot of blades, and you want to keep using the sharpest blades you can to make the job easier.

Your local hardware store will stock good blades and scissors.



Decision Making

How Much Material Do I Need?

It is really difficult to predict how much material you might need for your van as there are different methodologies you can employ to line your van and everyone uses their vehicle slightly differently.

Lining Methodologies

There are essentially two different ways you can line your van. The method chosen will make a significant difference to how much carpeting material you might need:

Method 1: All in 1 Lining

This method carpets from ceiling to floor. Holes are cut out for the windows, but not for any voids. The carpet seals in the wall panels. This is the simplest and most efficient method with less carpet waste, but it is less practical if you need access to wiring behind the scenes at any point in the future.

Method 2: Wall Panels Lined Separately

This is the method demonstrated in our videos, but that doesn't mean it is better. You have to work out what works for you. You cut holes in the carpeting for both the windows and the voids. The wall panels are lined separately and then attached over the top of the insulated void. This method retains access to any wiring behind the panels. It is unfortunately a slightly more wasteful method as the cut sections for the voids do not give you as much carpet as you would need for lining the panel for that same void.

Calculations

Measure your van from the back of the driver's seat to the back door, then add 50cm and round up to the next metre. When you have a figure for all the areas of your van that you plan to carpet, round it up to the next 5m. If you have watched the installation video, you will note that 10m was enough to cover the walls of a short wheelbase T5, with a little material left over.

When calculating how much material you need, remember that although you may have to cut out holes for where the windows or vents go, the material you cut there will essentially be scrap. You might be able to use it for other areas, but it will never be as much as you might think. Kiravans carpets are available in 5m or 10m lengths, and the strips are 2m wide.

We do recommend that it is better to overestimate what you need. This is not a blatant attempt to sell you more, but carpet colours vary from batch to batch. If you try to buy more a few weeks later, we cannot guarantee that the colour will be an exact match.

As a very rough guide, for medium sized short wheelbase vans (Opel Vivaro / Renault Trafic / VW T4/T5/T6) 10m might just be enough for what you want to do. Long wheelbase versions of these vans might need a little more than 10m, and larger vans (Ducato / Boxer / Jumper / Relay etc), perhaps 15-20m. Please do not take our word for it. There is no substitute for measuring up based on your own lining plans.

Additional Resources:

[Watch Installation Video \(Eng+Subtitles\)](#)

[Buy Lining Materials](#)

Frequently Asked Questions

Should I Insulate the Roof of My Van?

Again, this really comes down to personal preference. This is probably the best area to spend money on insulation, especially if you plan on camping in colder weather, as it is where much of the heat loss will occur, but the opportunity and effectiveness will be dictated by van type.

Vehicles with a solid top can take the full 4-layer insulation package suggested. Depending on the height of your vehicle, you may, or may not, want to. If you don't have much height to play with, depending on how tall you are, you could maybe leave the thermal filler out. As noted previously, some vehicles, such as the VW T5/T6 don't have enough space to put a layer of this between the roof lining panels and the metal van roof.

If your van has a pop-top, the options are more limited. When a pop-top roof is down, the insulation is already pretty good as you have the bed floor and mattress acting as insulators. When the pop-top roof is up however, your camper has the insulation properties of a canvas tent. Some people choose to buy a custom made pop-top thermal screen wrap. This product (not available at Kiravans) wraps around the canvas outside the van and helps keep the heat in.

Do I Need a Vapour Barrier?

This is probably the most contentious area for van builds, so I am going to present two sides of the debate and leave you to decide what works best for you.

Moisture will exist in a campervan. It occurs naturally in the air and the occupants of the van (human and pets) exhale water vapour as they breathe. Moisture is also a by-product of heating your van, and operating your gas hob, more so if you are boiling water for a cuppa.

At night, as the temperature of the van falls, the ability of the air to hold the moisture as a gas reduces. As the air hits the colder, uninsulated exterior of your van (windows and exposed metal) it condenses to form moisture on those surfaces.

Ideally, you want to prevent as much of this condensation as you can. It is easy to wipe clean any moisture that forms on the windows, but what about the cold metal skin of the van that you can't reach?

What is a Vapour Barrier?

A vapour barrier is an impermeable skin that wraps up the inside of your van to prevent moisture from reaching the bare outside metal of your van. The insulation sits behind the barrier to retain the warmth in the van and further prevent condensation from forming on the cold van walls.

The Case Against Vapour Barriers

Many people argue that in order for a vapour barrier to work in your van, it has to be absolutely perfect. If there are any gaps in the barrier, the moisture will get in between the barrier and the van walls, and it is difficult to get it back out. In smaller and medium sized vans, it is almost impossible to create a perfect vapour barrier as you have fixtures and

fittings that cause gaps in the insulation. With the small volume of air in the van, you need slam vents for when you close the tailgate door. These are gaps in the vapour barrier.

The following YouTube video (courtesy of **Florida Van Man**) presents this case by detailing how much moisture will get through any small gaps in your barrier. He is not arguing against insulation, this is still very important, rather he is saying that if you can't have a perfect barrier, you are better to let the vehicle breathe.

Additional Resources: [Watch Video - Case Against Vapour Barriers \(Eng+ Subtitles\)](#)

The Case For Vapour Barriers

The following YouTube video (courtesy of the excellent **Greg Virgoe**), beautifully demonstrates the importance of **insulation**. He uses this video to illustrate the value of the vapour barrier, but in truth it mostly highlights the benefit of insulation.

In the experiment shown, the inside of the bucket represents the cold air outside your van. The outside of the bucket is the inside of your warm van.

He uses ice to chill the "air", but moisture will condense in your van even with an outside temperature above freezing:

Additional Resources: [Watch Video - Case for Vapour Barriers \(Eng+Subtitles\)](#)

A second video tries to seal the case for the vapour barrier, providing the maths for how much (or little) moisture will be trapped between the barrier and the vehicle walls. The calculations are based on a properly sealed barrier, but doesn't tackle the issue of the imperfect seal that is the basis of the argument against:

Additional Resources: [Watch Video - Case for Vapour Barriers - The Maths \(Eng+Subtitles\)](#)

Vapour Barrier Summary

There are dozens of videos on the topic and you could spend the rest of your life researching this area. The truth is, it depends on the size of your van and how you intend to use it, where you intend to use it, and in what seasons.

The vast majority of campervan owners sleep in their vehicles only a handful of times through the summer. We believe that the Kiravans 4-step lining system outlined in this document provides decent insulation for this demographic.

People with larger vans and without pop-tops, may find it easier to set up vapour barriers without gaps if they wish to go in that direction. People living in their vans through the winter (as opposed to occasional use) will want to be well insulated and may want to consider a vapour barrier as daily cooking and breathing in a colder environment will create greater moisture content repeatedly through that season.

Top Tips to Avoid Condensation

Insulation and a vapour barrier is only part of the story. There is more you can do to prevent condensation forming in your van. A combination of the following suggestions will help:

1. Where possible, cook outside, or with the van door open (yes we have heard of mosquitos).
2. Ventilation. Air the van after cooking and first thing in the morning. Sleep with the windows open (yes, I know, mosquitos right!). By keeping the air flowing, the temperature differential is reduced and the moisture laden air can escape instead of condensing. If you are worried about being cold, buy some thermals or a thicker duvet.
3. Wipe down any excess moisture each morning. If you leave it in place, it will eventually evaporate naturally, but the moisture is still in the van. It is just temporarily held in suspension in the air, waiting to condense on a cold surface again. Get rid of it.
4. Use thermal window insulation screens. If the moisture laden air doesn't touch the cold window, it won't condense there.
5. Park facing East! The morning sun will heat up the windscreen and therefore the van, thus increasing the capacity for the air to hold the moisture as a gas and reducing any condensation. Your back doors will now be facing the sunset, but the passenger sliding door will be facing South (in a LHD van).
6. Learn to sleep without breathing! This suggestion is highly effective, but has some very nasty side effects that have the potential to spoil your trip. This suggestion is not recommended.

Conclusions

Kiravans has years of experience in sourcing, using and selling the materials for building campervans. Before we started the website, we were a campervan rental company with a large fleet of home built vans. The suggestions described in this document are based on almost 2 decades of personal experience.

We are well aware that there are many alternative opinions out there and we encourage you to look at them too. Most of the opinions you will find are probably quite valid, but may be for a vehicle, or camping lifestyle different to your own. You need to work out what works best for you.

We hope that the information provided here helps you make an informed choice as you make your journey.

Digital Copies

If you have read this document in paper format and would like to receive the digital version with live links to videos and other information on the Kiravans website, please scan this QR code to download a copy. Alternatively, you can request a copy by emailing help@kiravans.co.uk.



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