

Easy Guide to Garage Conversions



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Your Easy Guide for Garage Conversions

This guidance/advice is for homeowners considering a Garage Conversion in particular aspects of the Building Regulations which a Garage Conversion for habitable purposes should meet. And to help highlight the risks of wrongly specified materials used for your Garage Conversions.

If you're considering a garage conversion, it's important to be aware of the risks involved and to take steps to avoid them.

You must work with an experienced and reputable company to ensure that your conversion is done safely and properly. Not doing so means putting the lives of everyone in your home at risk. And while planning permission is not normally required for a garage conversion, it will be if you are converting a garage into a separate dwelling. Also, if you are making certain alterations, then you may need planning permission. It's also worth noting that your conversion will need to comply with building regulations - even when the work doesn't require planning permission. This includes having someone check and validate the fire safety, electrics, ventilation, insulation (U values) and drainage you have installed. However, since this article is only a helpful guide, you should check with your local authority before any work begins.

What are some of the risks associated with poorly specified Garage Conversions?

The risks when you opt for a cheap garage conversion include:

1. Fire hazards because of the cheap materials being used – they **MUST** meet legal regulations.
2. Poor insulation materials will lead to higher energy bills and poor comfort levels in your new space.
3. Lack of proper ventilation can cause mould issues.
4. Electrical work that is done poorly can create shock hazards.
5. Sloppy construction can result in injuries from falling debris.

The risks that may come when you decide to carry out a cheap garage conversion, aren't just being highlighted by us - the Federation of Master Builders also stresses how important it is for you to comply with building regulations and use quality materials to avoid future fire issues. And if you do need planning consent then be aware that a building inspector will call regularly to check that the conversion complies with the rules. They will hand you a final certificate when the work is finished.

How can you avoid these risks when you begin a garage conversion?

There are a few things you can do to avoid the risks associated with cheap garage conversions, including:

1. Make sure the construction is done properly to avoid injuries and that it meets building control regulations.
2. Have a qualified contractor handle the electrical work to avoid shock hazards.
3. Make sure the space is properly insulated to avoid high energy bills and discomfort.
4. Ensure that the space is well-ventilated to prevent moisture build-up and mould growth.

Who should you work with to ensure a safe and proper garage conversion?

For your garage conversion project to be a success, you should:

1. Use a firm with experience in garage conversions.
2. Ask to see examples of their work.
3. Get a written quotation of the cost of the project, including materials and labour, before deciding.

How to avoid the dangers and risks of cheaply specified Garage Conversions.

If you're considering a garage conversion, it's important to work with a reputable company with lots of experience in converting a garage successfully - and that means working with the friendly team at Croft Garage Conversions.

By doing so, your garage conversion project will be the success you want it to be – without risks once the work is complete.

Complying with Building Control requirements.

Foundations.

Support will be needed for any new walls constructed to infill the former door opening.

If the original foundations do not continue below the door opening, either:

1. A new foundation should be provided; the depth of this foundation will depend on the ground conditions on the site and that of the existing foundation (generally between 750mm – 1000mm).

Or

2. 1 x No. 100 x 140 deep concrete lintel may be used to span the opening of a single garage door (size is dependent upon span of the opening). The ends of the lintols should be cut into the existing brickwork to ensure a minimum end bearing of 150mm.

Walls.

Any new wall constructed to fill in the former door opening should be constructed to achieve a U value not exceeding 0.18W/m²k. Typically wall construction to achieve this would be either a 4"x 2" stud work or 100mm blockwork and 100mm PIR type insulation (depending on the manufacturer).

Where the garage is semi-detached, sound insulation should be provided to the party wall. Construction as for the external walls above should, in most cases, be sufficient.

If only part of a garage is being converted, both thermal insulation and 30 minutes fire separation must be provided to any new separating walls between remaining garage and new room.

Floors.

The existing floor will need upgrading to ensure adequate damp protection and to prevent heat loss.

Damp protection can be provided by either a liquid or sheet membrane. This should link with the damp proof course in the wall. The floor should be insulated to achieve a U value not exceeding 0.25w/m²K. The thickness of insulation needed to achieve this will depend on the type used, 100mm of PIR type insulation is generally acceptable (depending on the manufacturer). The floor finish can be 18mm T & G chipboard or 65mm reinforced screed.

As garage floors are typically 100-150mm lower than the house floor, the build-up can usually be accommodated but avoid leaving a small step between adjoining floors as this can introduce a trip hazard.

Pitched Roof/Ceiling.

A traditional pitched roof with level ceiling should be insulated to achieve a U value not exceeding 0.16W/m²K. This can generally be achieved by providing a total of 300mm (depending on the manufacturer) quilt type insulation in two layers, the first laid between the ceiling joists and the second laid at right angles over the joists.

The roof should normally be ventilated at the eaves equivalent to an area of not less than a continuous strip 10mm wide and if the roof is a mono-pitch at high level with an equivalent area of not less than a continuous strip 5mm wide.

Flat Roof.

Flat roofs are likely to need upgrading to provide adequate thermal insulation to achieve a maximum U value of 0.16w/ m²K and roof ventilation, 150mm of PIR type insulation is generally acceptable (depending on the manufacturer).

Where possible a warm roof construction is the best option as this also helps with internal head height.

Windows/Doors.

Windows should be draught proofed and double glazed to achieve a U value not exceeding 1.4w/m²K (e.g. Low E glass and Argon filled) or Window Energy Rating (WER) Band C.

External doors should achieve a maximum U value of 1.4w/m²K.

If the new door/window is installed within a cavity wall, then insulated damp proof courses should be provided around the opening to prevent cold bridging leading to condensation problems.

Should the new door/window be installed within a solid wall, then insulated dry lining will be required around the opening to prevent thermal bridging/heat loss.

Ventilation.

Ventilation openings should be provided to each room. There is no minimum size for kitchens, utility rooms or bathrooms but other rooms require a ventilation opening of at least 1/20th of their floor area.

Generally, background ventilation is required to habitable rooms at a rate of 8000mm² and to kitchens, bathrooms, WCs, and utility rooms at a rate of 4000mm².

Suitably sized mechanical ventilation ducted to external air or passive stack ventilation is required to bathrooms and shower rooms (15 litres per second), kitchens (60l/s or 30 if incorporated in a cooker hood), utility rooms (30l/s) and WC's (6l/s).

Internal doors should be provided with a 10mm gap below the door to aid air circulation.

Means of escape in case of fire.

Should the new room not lead directly to the hall approaching the front door, the new window should be sized to allow escape. This will require an unobstructed area of 0.33m² with a minimum dimension of 450mm high/wide and positioned between 800-1100mm above ground level to the bottom of the openable part of the window. If the new room formed does not have its own external door, a fire detection and alarm system to BS 5839-6:2019 should be installed to the property.

Electrical.

Any new electrics should meet the requirements of Part P of the Building Regulations and be carried out by a competent person.

Additional items.

New rooms should be fitted with a light fitting that will only accept energy efficient bulbs.

Insulation between all building elements should be linked to prevent thermal bridging.

Controls should be fitted to any new heating to prevent undue energy waste.

Note.

These details are not intended to show you how to comply fully with the Building Regulations but are produced only as a guide. They show the more common means of achieving compliance with the Building Regulations but are not the only way to comply.

If you or your builder is not confident in the information/construction required to comply, then professional advice should be sought from an architect or similar.

Usually, the best and easiest way to find this information is on the manufacturer's websites.

If your proposals differ in any way from these details or you have any queries, you should discuss these with the Area Building Control Surveyor before work commences.

Whilst every care has been taken in compiling this information note and the statements contained herein, the publishers and promoters cannot accept responsibility for any inaccuracies.

