



A division of Kishorn Specialist Contractors Ltd

Icynene Insulation - Retrofit Guidelines

Scheduling the Installation

Please refer to the guidelines regarding scheduling for New Build Installations

Before our Arrival

Our estimate will have included a cost for Masking and Preparation. You may wish to do this yourself, and therefore it will be your responsibility to mask and protect any glazing and framing of windows and doors. Our surveyors will advise beforehand on what needs to be protected. Icynene rapidly expands to many times its original volume; overspray can and does occur and the resulting fine mist can leave deposits. Once it dries it can be extremely difficult to remove – so best to mask thoroughly, instructing all trades to leave it undisturbed while the job is completed.



Rig arriving onsite



Existing insulation to be removed

We will mask and protect any carpets and door thresholds where we have to run the application hose which is about 50mm in diameter. Any furniture must be placed and covered a minimum of 1m away from the walls to be treated. It is strongly advised to remove any valuable or delicate items.

Icynene can only be applied where there is an open void. If there is glass wool or any other type of insulation present, then it needs to be removed beforehand. This will have been identified where possible in our pre-visit inspection and remedial action will be advised. Please refer to the specific notes below.

On Arrival

On arrival, our installers will park up the rig and couple the generator. The drums containing the material components are required to be heated to a high temperature before spraying can commence; this may take 2-4 hours, depending on the ambient temperature and residual heat in the drums. This gives our installers valuable time to inspect the job, plan out the hose routes and determine the spraying sequence. It is important that they explain and agree the scope of works as set out in the Job Sheet with the site representative. *If there are any significant discrepancies these should be indicated to the installers who will then seek approval from Kishorn Specialist Contractors.*

Our installers will inspect any masking done by the client and make good where necessary. Any adjustments will be charged on an hourly basis. We will not be held responsible for any damage done from overspray where there has not been adequate masking. If they have been instructed to do so, our installers will prepare the masking of all surfaces necessary.

It is important that a named representative is on hand at the time of arrival. Our spray rigs are made up of a generator and trailer unit. A clear parking zone and suitable turning space must be designated close to the point of access to the building before arrival; this bay should be 15m long, but if circumstances dictate the rig may be split as necessary. Our surveyors will have discussed and identified suitable access arrangements prior to scheduling.

Before the installation

If required, temporary ventilation will be provided and access platforms will be set up. Any appropriate signage and protective ramps will be positioned and the hoses and air lines will be fed to the building.

Our installers use full face breathing apparatus while the Icynene is being applied; the process generates a lot of heat and concentrations of chemicals are released. These react and are fully consumed within 30 minutes of spraying; during this time it is advisable for unprotected workers to remain outside or in another part of the building. There will be a residual odour which will be undetectable after 24 hours. It is important to liaise with any other trades who wish to continue work onsite if necessary. Due to the nature of existing buildings, occasionally our installers will come upon sections or areas filled with insulation or of an uncertain construction; in this case they will stop works and either prepare to remove the material or leave the area untreated; in any case they will liaise with the client on the best course of action. We will aim for the best possible installation, but there may be areas we will be unable to access, for example where there are sash windows the material is best injected away from the recesses. Again, our installers will advise on the most appropriate course of action to be taken.

For specific installation measures:

Insulating walls behind existing linings such as lath and plaster, timber and plasterboard

1. Holes of up to 20mm diameter will be drilled on a grid pattern, the spacing of the holes will be dependent on the width of void to be insulated, narrow voids will require holes at spacing's down to 200mm, with larger voids the spacing's could be up to 600mm
2. To ensure maximum coverage holes will be drilled close to the bottom and the top of the wall.
3. As the void is filled Icynene may come back out of the delivery holes marking decoration.
4. Icynene will find its way out of any gaps or existing holes. Our operatives will endeavour to seal these holes prior to installation of Icynene, but Icynene may still emerge marking decoration, this is the Icynene sealing the wall and filling any possible air channels which allow cold air into the building.
5. Icynene can only be delivered in to open voids, if there are other insulations, such as glass wool, present then the penetration and spread of the Icynene will be greatly diminished reducing the effectiveness.
6. If glass wool is present in the void it needs to be removed prior to the Icynene being installed, this is usually carried out by the client, but if this element of the works is negotiated to be carried out by the Icynene installers then holes large enough to facilitate the removal of the glass wool need to be cut between each pair of studs, above and below any dwangs. Any reinstatement of these holes is to be carried out by others (unless previously agreed in writing to be reinstated by the Icynene installers)
7. When installing Icynene behind linings our operatives are working blind, and although every effort is made to ensure full coverage is obtained, this cannot be guaranteed and some small voids may remain.

Insulating under suspended ground floors

1. The Icynene is sprayed on to the underside of the floorboards from the void below the floor (Solum)
2. To gain satisfactory access a clear void of 500mm is required below the floor joists and the ground below. It may be possible to insulate some areas with a lesser void but that is at the discretion of the installer, and with tighter voids (less than 500mm) to work in, the insulation may not have full coverage or seal.
3. Hatches will be required to gain access under the floor, if extra hatches are required to be cut by our operatives these will be charged at out hourly rate. Reinstatement of these hatches is to be by others.
4. If there are any gaps in the floor boards Icynene may spray through. The floor will be checked for gaps and sealed, but gaps are not always obvious and some may be missed. We will not be held responsible for any damage caused by the escape of Icynene spray through gaps in flooring.

Insulating roofs

1. Icynene is an extremely effective way to insulate a roof. The Icynene is sprayed directly onto the underside of the sarking boards creating a draught free seal to keep cold air out and warm air in. The aim of insulating the roof in this way is to create a warm roof structure; no ventilation to the roof structure is required due to Icynene's unique open cell properties.
2. The Icynene is sprayed from the wall head up to the ridge at a thickness agreed with the client.
3. Small holes in the sarking can be sprayed over but larger holes may need repairing to ensure the Icynene is contained. We will not be held responsible for any Icynene which expands on to the surface of the roof due to gaps or holes in the roof structure. Please inspect the roof prior to the Icynene being installed, any repairs carried out by our operatives will be charged at out hourly rate.
4. In many properties there are rooms within the roof structure, these create coombs which are sloping sections of ceilings, Icynene is the most effective way to insulate these coombs, and due to Icynene's unique open-cell structure,

no ventilation is required. Coombs are insulated by spraying down from above and spraying up from below, and/or drilling holes between the rafters.

5. Rooms in the roof structure also create small attic spaces and voids behind the low vertical walls, these spaces can be quite small. If the void is too small for the installer to gain access and work, large holes may need to be cut to gain access from the room space and in some cases linings removed.
6. When installing Icynene into coombs our installers are working “blind” and although every effort is made to ensure full coverage is obtained, this cannot be guaranteed, and some small voids may be present.
7. Dormer windows are areas where excessive heat loss can occur, these can effectively be treated with Icynene if suitable access is gained, this may involve cutting large holes in the ceilings and cheeks of the dormer, in some cases the only really effective way to gain access to install the Icynene correctly is to remove all the linings to the dormers.



Insulation installed to sarking



Drill hole pattern as required



Drilled and filled

These guidelines are intended to give our clients a fuller understanding of the Icynene installation process in existing, often hard to treat, properties. Installing Icynene is often the most effective way to insulate existing buildings, by vastly reducing cold air infiltration, creating high levels of air tightness. Due to the high levels of air tightness achieved consideration must be given to mechanical ventilation, in the form of trickle vents and kitchen and bathroom extraction.

Unless previously agreed in writing, our operatives will not remove existing insulation or repair/reinstate holes or hatches which are cut for the Icynene installation process. We also do not carry out any redecoration works.

We ask that all furniture is moved away from the areas to be treated, and that ornaments and breakables are packed away, it is also advisable to remove curtains and blinds from areas to be treated. Installing Icynene is a mechanical process and as such, although very unlikely, accidents can happen. The aim of our Icynene installers is to achieve the most effective installation of the Icynene possible; to this end some disruption and damage to decoration must be anticipated. Our installers will respect your property and will try to keep the disruption to a minimum, they will explain what they are doing and if the client is unhappy they will try to find an alternative method.

Installing Icynene can be an expensive process and we want our clients to enjoy the most benefit possible. We feel it is better to have more disruption in the short term to enjoy the healthy, comfortable, energy efficient benefits in the long term. We encourage our clients to ask as many questions as they like; this way a full understanding is gained.

