

Recessed lights insulation

Recessed light fittings are now common but they can often use a lot of energy for a number of reasons:

1. They are spotlights and cannot spread light widely – each light produces a restricted ‘cone’ of light, so even small rooms need multiple light fittings
2. Lamps can often be high energy users – typically 50W halogen bulbs
3. The light fittings often open to the loft space, allowing significant heat loss

So, what can be done?



Typical recessed light fitting

❖ Reducing energy use

- If you are fitting new lighting, think about whether you really need recessed lights. If the room doesn't need directional lighting on specific area, a single suspended light fitting can replace 6 or more spot lights. This means you could use a single 30W low energy bulb instead of 6 x 50W (300W) spotlights. This is much cheaper, with 5 fewer bulbs to buy and ten times less electricity to run.
- If you really need recessed lights or your home has them already, check the wattage of the bulbs. A 50W halogen bulb can be replaced with a 35W version with little noticeable loss of light in most circumstances.
- Even better is to replace halogen bulbs with modern LED versions. A 5W LED uses 10% of the standard halogen bulb with the same light output. LED bulbs are more expensive to buy, but are very long lasting and will be much cheaper in terms of energy bills.

❖ Enclosures

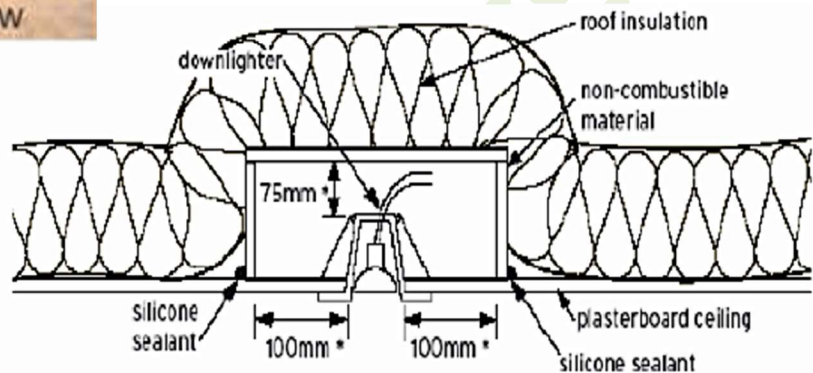
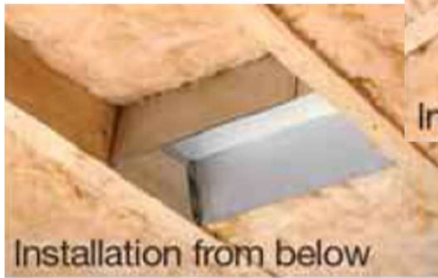
- Check to see if the lights have been correctly fitted. Recessed light fittings should be fitted with a ‘loft cap’ or enclosure to prevent warm air escaping to the loft and to allow loft insulation to be replaced over the light fittings.
- **Insulation should never be placed directly on recessed lights – this could cause them to overheat and start a fire.**



The Loft cap

- Enclosures can be fitted over light fittings but you must make sure these are fire-rated and match the manufacturers' specifications for the fitting. **Follow manufacturers' recommendations and do not attempt home-made covers.**

Examples of sealed light fitting enclosures



* or clearance as advised by fitting manufacturer

Typical arrangement for an enclosed downlighter in a roof space

Images courtesy of:

https://www.charnwood.gov.uk/files/documents/spotlight_recessed_lights_and_best_practice_regards_the_building_regulations/Spotlights-Recessed%20lights%20and%20guide%20to%20best%20practice%20and%20The%20Building%20Regulations.pdf

- If you really do want directional lights, choosing ones on tracks or bars avoids heat loss through the roof and the complexities of needing to add fire rated boxing or loft caps (see photo).



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