

TECHNICAL GUIDANCE

RECESSED LIGHT FITTINGS IN CEILINGS TO INTERMEDIATE FLOORS IN HOUSES

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QUESTION

What should be considered when installing recessed light fittings (downlighters) in plasterboard ceilings, to intermediate floors in houses, with regards to fire resistance and isolation from insulation?

CONSIDERATIONS

- Fire resistance of a floor will vary depending on the type of floor deck, joists type e.g. solid, I-joists, or metal web joists, and thickness and type of plasterboard used for the ceiling.
- Holes in ceilings will reduce the fire resistance of the ceiling/floor construction.
- Proprietary fire hoods can be used over light fittings to help provide the required fire resistance.
- Certified fire resistant downlighters are available, which achieve fire resistance without further protection.
- To avoid heat build-up and loss of performance, drivers, transformers and lamps should not be covered by insulation.
- In England and Wales, intermediate floors in two storey houses need to achieve a 'modified' 30 minutes fire resistance. A full 30 minutes fire resistance will need to be provided to intermediate floors in three storey houses and over an integral garage in two storey houses. Greater fire resistance may be required in taller or more complex buildings and it is best to check with your surveyor if this is the case.

Amended

ANSWER

Solid timber joists

Non fire-rated downlighters, without further protection, should have fire test evidence for use in a similar solid joist floor build-up, or be fitted with fire hoods. Alternatively, fire resisting downlighters should be used.

Fire-resistant downlighters and fire-resistant hoods are only acceptable if test evidence supports their use in a similar solid joist floor build-up.

I-joists and metal web joists

For engineered floor joists, it is recommended that all recessed downlighters be either fire resistant or fitted with fire hoods.

Fire-resistant downlighters and fire-resistant hoods are only acceptable if test evidence supports their use in a similar engineered joist floor build-up.

General

In all floor types, insulation should be kept back from the light fitting to safely disperse the build up of heat around the driver/transformer and lamp.