

Floor Finishes

Carpets and Rugs

For Underfloor Heating



Underfloor heating can be used with an increasingly number of types of carpets and rugs.

Carpets have traditionally been used for bedrooms and living areas, and it is now perfectly able to achieve good outputs when laid over underfloor heating. However there are some key points that needs careful consideration.

The combined value of the carpet and underlay must not exceed 2.5 togs when the underfloor heating is powered by a gas/oil fired boiler.

If a Heat Pump is being used in a new building this should be reduced down to a maximum of 1.5togs.

If a Heat Pump is being used in a renovation, there is a possibility that carpets would not be a suitable option. This is because of the low temperature of the underfloor heating, greater heat losses through the fabric of the building and the insulating quality of the carpet and underlay. This may mean that the room in question would not achieve the designed temperatures. (Mi-Heat would be able to advise on this at design stage).



Mi-Heat uses up to date modern software programs that consider the thermal resistances of any floor coverings, including carpets. If carpets are being considered, usually the underfloor heating pipe quantity and centres can be altered so that enough heating pipe is within the room. This will ensure that the designed room temperatures can be reached at -3°C externally.

With the popularity of underfloor heating increasing over the last 20 years many carpet manufacturers have a large collection of ranges that are completely suitable. Usually these are a wool and nylon mix, with pure nylon being the lowest tog value.

However for the thickest and highest wool mixes, these may have a tog value on its own of well over 2.5 togs and so would not be a sensible option for underfloor heating.

Preparation & Installation

The sub-floor should be prepared to a high standard, which would be similar to most other floor finishes. The underlay can deal with some surface defects, however most carpets and underlay suitable for underfloor heating would have less depth due to the lower tog values required. Therefore there is less tolerance for surface irregularities, so any screed ripples should be flattened out before fitting commences.

If carpets are being used over a screeded floor, or if the floor is the Mi-Heat Ultraflo self levelling compound, then the gripper rods should always be glued in place.

If over a timber suspended floor, the gripper rods can be nailed, however care should be taken not to penetrate to the pipe underneath. When laid over the Mi-Heat UltraBoard (pre-routed gypsum fibre boards), a ultra fine feather grout should be applied to cover the underfloor heating pipes (supplied by Mi-Heat once floor finish is known), and the gripper rods should be glued and nailed. Nailing alone will not be enough to secure them adequately to the gypsum boards.

