

## Carpeting floors



**Underfloor heating can be used with most types of carpet. The following guidelines will help you get the best from your Nu-Heat new-build or retrofit UFH system.**

### INTRODUCTION

Carpets are the traditional floor covering for bedrooms and living areas. It is perfectly possible to achieve good outputs with underfloor heating and carpet but some key points will need consideration.

**The combined value of the carpet and underlay should not exceed 2.5 tog, and preferably less than 1.5 for heat pump systems.**

It makes sense to take care in choosing carpet and underlay that will work well with the underfloor heating. Quality manufacturers will have technical information on their products available to customers.

At the design stage, Nu-Heat's unique Optimiser software program will consider the thermal resistance of the selected floor coverings to establish the quantity and spacing of heating tube required within each room. As a result, Nu-Heat is able to ensure that the necessary room temperatures can be achieved resulting in a comfortable heated environment.

### Carpet

The tog value of Brinton's 'Bell Twist', a typical 80% wool and 20% nylon carpet, is 1.23. Most nylon pile carpets will achieve around 1 tog and the thickest wool carpet, over 2.5 tog. Accordingly, the thickest 80% wool and 20% nylon carpets should only be used after taking advice from both Nu-Heat design engineers and the carpet suppliers.

### Underlay

Consideration should also be given to the underlay used to ensure its tog rating is taken into account at the design stage – most suppliers provide this information. Interfloor (manufacturers of Tredaire and Duralay) state that most of their underlay products are suitable for use with underfloor heating, Heatflow being specifically designed for the purpose. Tredaire Technics sponge underlays with polyester facing and glass reinforced crepe paper backing have tog values of between 0.56 and 0.66 depending on thickness. Felt and heavy crumb underlays should be avoided.

Interfloor underlays	Thickness	Tog rating
Technics 5	5.0mm	0.56
Technics 6	6.0mm	0.66
Willow Green waffle rubber	8.4mm	1.1

*For example: Brintons Bell Twist (1.23 tog)  
+ Tredaire Technics 5 (0.56 tog)  
= 1.79 tog total.*

*Values stated have been taken from manufacturers' specification sheets.*

### INSTALLATION

#### Sub-floor preparation

As with any floor covering, the floor surface should be prepared to a high standard. The underlay will absorb some surface deviation but because the underlay and carpet generally have less depth due to the lower tog values, there is less tolerance for surface irregularities, therefore any screed ripples should be flattened before fitting the carpet.

#### Fitting the carpet

To avoid uneven heating pockets it is possible to stick the carpet and underlay to the floor, as in the 'double-stick' system. The heating should be switched off 48 hours prior to laying and for 48 hours afterwards and then brought up to full working temperature gradually over 7 days. Adhesives such as F. Ball F41 and F43 are suitable for use at normal underfloor heating operating temperatures.

If carpet grippers are required to stretch the carpet, they should always be glued in place over screed or self-levelling compound to avoid the sub-floor cracking, damage the the UFH, or the floor itself. Over timber floors the gripper rod can be nailed but care should be taken not to penetrate the underfloor heating tube. When laid over LoPro™10 panel, the gripper rod should be glued and nailed, as nails alone will not secure the gripper rod adequately to the gypsum board. Care should be taken ensure that UFH tube is not damaged.

**Nu-Heat will be happy to advise on any aspect of floor coverings or you can visit our website at [www.nu-heat.co.uk](http://www.nu-heat.co.uk)**