“WHAT TYPES OF FLOORING CAN I HAVE WITH UNDERFLOOR HEATING?”

Simply put, we would rank the types of flooring that are most commonly used in the following order:

1. Tiles/natural stone – Porcelain, ceramic, granite, marble, travertine etc.
2. Vinyl – Karndean, Amtico etc.
3. Engineered wood – usually 14mm-18mm/Laminate Flooring
4. Solid wood – 22mm max
5. Carpet – max 2.5 tog rating

TILES/NATURAL STONE

Typical heat output is around 130-150W/m²

Due to the boom in open plan living, large tiled areas in houses are now commonplace. More and more home owners than ever are recognising the advantages of a floor that is easy to clean, durable and attractive. Materials such as Porcelain, granite and ceramic have the best thermal conductivity and therefore produce the best heat output with underfloor heating systems. The heat transmission characteristics of tiles etc can also be beneficial in that they hold onto heat for a long time after the underfloor heating system is turned off, which means that the room will be kept warmer for longer. The slight negative is that these materials are naturally cold.

VINYL

Typical heat output is around 100-120W/m²

Maybe surprisingly, vinyl conducts heat very well. Brands such as Karndean and Amtico provide vinyl which has the appearance of wood, tiles, stone etc. The material has the advantage of being naturally quite warm.

ENGINEERED WOOD/LAMINATE

Typical heat output is around 95-115W/m²

As with Tiles, the boom in open plan living has seen increased popularity in recent years. Wood is an insulator, which means that it slows down the transmission of heat produced by the underfloor heating system, reducing the system’s efficiency. However, wood is less insulating than other flooring types such as carpet and engineered wooden flooring which is made up by layers of plywood and solid wood (usually 14mm in total) is often recommended for use with underfloor heating systems by their manufacturers. The floor will feel pleasantly warm but not hot underfoot.

SOLID WOOD

Typical heat output is around 80-95W/m²

Solid wooden flooring is usually 18-22mm and as previously mentioned, it’s an insulator. Careful consideration should be considered if selecting solid wood over engineered flooring.

CARPET

Typical heat output is around 70-85W/m²

Carpets can be used with underfloor heating but there are some factors that you need to take into consideration about the choice of carpet. If your carpet is too thick and insulating, you won’t feel the benefit of the underfloor heating because the heat will not be able to penetrate through into the room efficiently.
All carpets have a tog rating, which indicates how insulating the carpet is. The best carpets to use with underfloor heating are those with tog ratings of less than 2.5(with underlay). Your supplier will be able to tell you the combined tog rating of the carpet/underlay. Installing underfloor heating beneath an appropriate carpet can result in a very cosy atmosphere. Something often overlooked is that carpet is naturally warm so requires less heat underfoot. With underfloor heating, the floor will be both warm and soft underfoot

HEAT OUTPUTS BY FLOOR COVERING

Floor Covering	Flow Temp.	Pipe spacing	Room Temp.	Heat Output W/m²
Tiles	50°	200mm	22°	130
Vinyl	50°	200mm	22°	101
Engineered wood	50°	200mm	22°	96
Solid wood	50°	200mm	22°	83
Carpet	50°	200mm	22°	72

50° flow temperature and 200mm pipe spacing is most common with boiler use
Heat output based on 50mm liquid screed/65-75mm fibre screed floor on insulation

TEL: 01302 727 182

Damien Mobile: 07912 044 489

Rob Mobile: 07912 044 490

Email: damien@underfloorheating1.co.uk
rob@underfloorheating1.co.uk
sales@underfloorheating1.co.uk

Web: www.underfloorheating1.co.uk

Unit 11E, Carcroft Enterprise Park, Carcroft, Doncaster, DN6 8DD