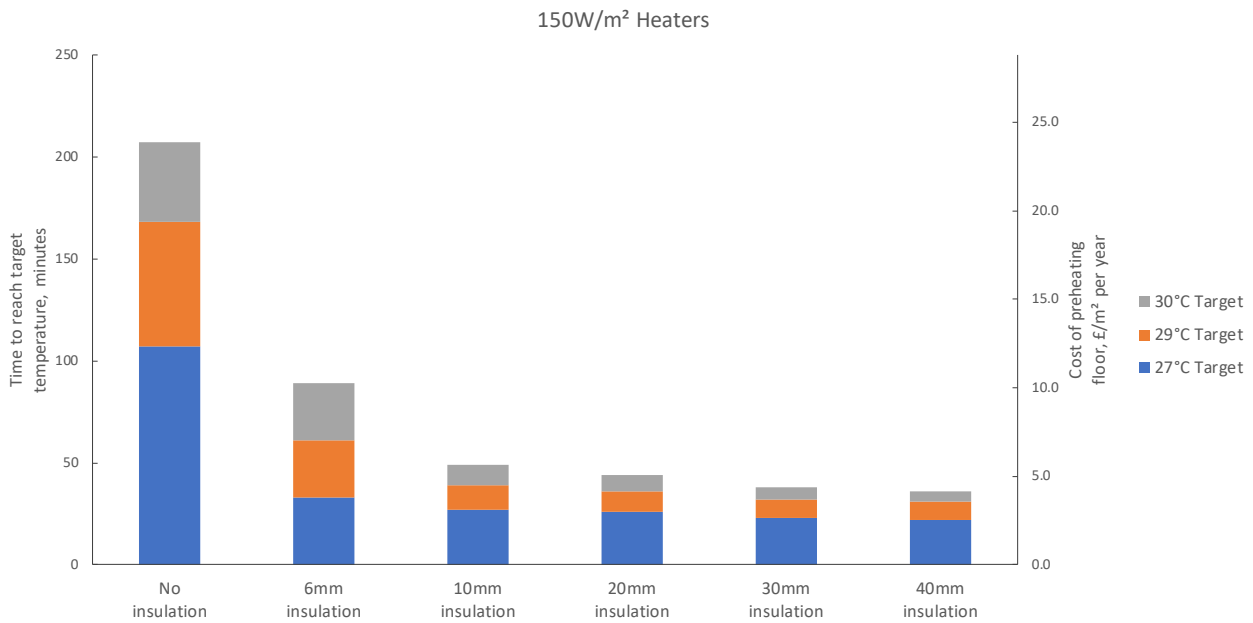


# Cement Coated Insulation Boards

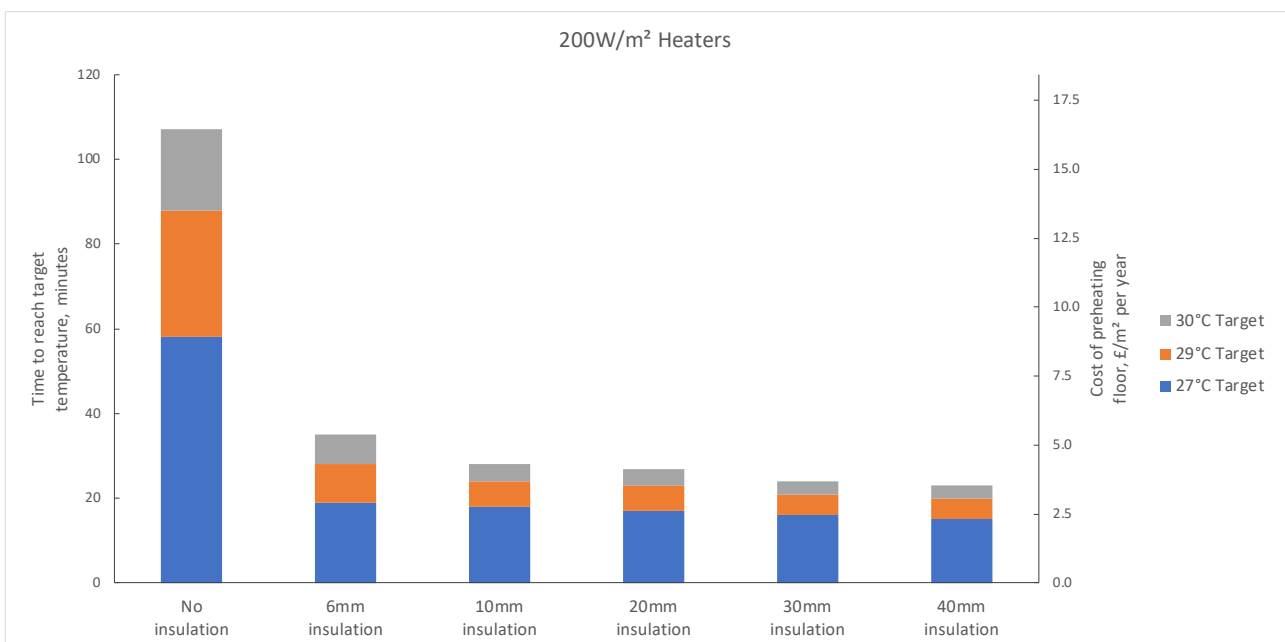
## Thickness vs Response Times

### INSULATION BOARD RESPONSE TIMES

The following graphs are the result of extensive testing, which show three different response times depending on the target surface temperature. The construction consisted of a 75mm sand and cement subfloor base, varying thicknesses of insulation boards with a tiled floor surface bonded using flexible tile adhesive. The times shown are how long it took for the floor surface to increase from 18°C to the specified target temperature.



Using Warmup insulation boards decreases heat up time by at least two times (comparing no insulation vs 6mm insulation). It can take as little as 35 minutes to reach 30°C floor temperature with Warmup insulation boards! For comparison for a floor without insulation to reach 30°C, it could take up to 3 hours and 20 minutes! That's 2 hours and 45 minutes of wasted energy. (Comparison made between 40mm insulation and no insulation).



\*Cost assumptions: 12.66p/kWh - system on twice a day, for 6 months (182 days) of the year.