

Quick Facts:

Location:
Macau, Republic of China

Client:
MGM Grand Macau

Nature of Project:
Commercial

About the client:
A 35-story, 600-room luxury casino resort co-owned by MGM Mirage and Macau casino magnate Stanley Ho's daughter

System specifications:

- 150W/m² heating mats
- 1cm thick insulation boards
- Warmup® XSTAT thermostats

Warmup is the only underfloor heating accredited by all these leading institutions:



Luxury casino resort chooses Warmup as finishing touch to suites and villas



The Challenge

The spacious bathrooms in the suites and villas had to be heated but clean design lines did not allow for conventional heaters.

The Solution

By installing Warmup® underfloor heaters, there was no need to encroach on room space. To ensure the quickest of response times, Warmup® insulation boards were laid down and to complete the seamless look, the flush mounted Warmup® XSTAT thermostats were selected as the heating control of choice.

The Result

Resort guests could relax in big spaces whilst enjoying evenly warm bathroom floors - at their preferred temperature, at any time of the day.



MGM GRAND - MACAU

System Specifications

Products Used



PFM matting system (PFM)

Warmup® mat systems are perfect for heating up a large or regular-shaped room. Just 2mm thin, this multi-strand core, double-insulated element is the toughest and thinnest wire you can buy. Installation is as quick and simple as rolling out the mat with pre-spaced wired. Sturdy fibreglass mesh gives it extra durability while super-sticky double-sided tape allows secure installation. Multiple heaters can be combined to cover larger areas.

Technical data:

- Operating voltage 230V: 50Hz
- Width: 500mm (0.5 metre)
- Mat thickness: 3mm
- Inner/Outer Insulation: Advanced Fluoropolymer
- Output rating: 150 W/m² and 200 W/m²
- Single 3m long 'cold tail' connection lead
- Approvals: ASTA BEAB, CE, KEMA & GS
- Lifetime Warranty & SafetyNet™
- Installation Guarantee



WARMUP® Insulation Boards

Using Warmup® insulation boards with underfloor heating can lower your running costs by as much as 50% while reducing your carbon footprint. In fact, they can pay for themselves in as little as 2 and a half years.

Technical data:

- Board Dimensions: 1250mm x 600mm
- Board Thicknesses: 6mm, 10mm (standard), 20mm, 50mm
- Able to withstand a load of 30 tonnes per square metre
- U Values (W/m K): 6mm-4.50, 10mm-2.70, 20mm 1.35, 50mm-0.54
- Water Absorption (Capillary): Nil
- Class "O" / "B1" fire rated
- High soundproofing properties
- No primer required when used in conjunction with underfloor heating



Warmup® XSTAT programmable thermostat

Warmup® XSTAT is a flush mounted, dual-sensor digital thermostat so easy to program that there is hardly any need to read the instruction booklet!

Technical data:

- Supply voltage: 230V: 50Hz
- Output relay SPST or 1A inductive load: 16A, 3,600W
- Built-in interrupter: 2-pole, 16A
- Temperature range: 0 / +40 °C
- Limitation of range: +5 / +55 °C
- Ambient temperature during operation: 0/+40°C
- On/off differential: 0.4°C
- Sensor type: NTC, 3 m
- Dimensions (H/W/D): 86 x 86 x 34 mm
- XSTAT Clock function: 4-events program/7 days
- XSTAT Housing: IP 20
- XSTAT Size of display (H/W): 26 x 39 mm
- XSTAT Installation depth: 14mm
- Approvals: CE, ASTA BEAB
- Available in white and graphite

Product Application

