



For nature, sport and discovery

Heat Mat
Ice & Snow Systems

Facade heating for Lee Valley Ice Centre




Bespoke
ice & snow systems



Walkways protected
from falling ice



Fully automated
control



An automated system to guarantee safety from falling ice and snow

The Goal

The Lee Valley Ice Centre was opened by Torvill and Dean in 1984, but by the 2010s it was aging and unable to cope with demand. A £30m redevelopment program was enacted and the building reopened in 2023.

As part of this redevelopment work copper shingles were used to face the front of the building. Due to the high levels of insulation within the structure these shingles remained at ambient temperature, allowing snow and ice to build up on the front of the building before it slipped off onto the concourse below (as can be seen on the main front cover image).

Heat Mat were tasked with designing an energy efficient and fully automated heating system to ensure that the shingles above the entrance remained snow and ice free whatever the weather, eliminating any risk of ice and snow falling onto people below.

Heat Mat's Solution

Working with the client we mapped out the area where the snow built up so we could provide a focused heat source in that area. The space behind the copper shingles was very restricted so we also needed to design a very thin system that was easy to install, and would present no fire risk.

We specified a trace heating system to be mounted behind the copper panels and supplied bespoke stainless steel fixings that could be secured onto the structure behind the panels. We incorporated a layer of fire rated insulation behind the heating system and also ensured that there were no electrical connections that would require periodic checking in the difficult to access space there.

We supplied moisture and temperature sensors for installation onto the roof of the building where they could operate out of sight of the Ice Centre's users. Combined with our ice and snow melting controllers these ensured that the system could operate automatically without any manual intervention required.

The Result

Heat Mat commissioned the system during 2023 confirming that it was operating as designed allowing the copper shingles to heat up to 25°C above ambient.

The system operated without problems through the winter of 2023/24 when the centre experienced a few weeks of sub-zero temperatures with no unwelcome snow or ice build up.

Project in detail

Date Installed

2023

Location

Lee Valley Ice Centre, London, UK

Client

Lee Valley Ice Centre

System supplied through

London based electrical wholesaler

Installer

Buckingham Group Contracting

System Specifications

- Ex-rated trace heating cable with customer installation method
- Proprietary roof fixings and specialist adhesives
- Automatic monitoring and control equipment including temperature and moisture sensors

About Lee Valley Ice Centre:

The Lee Valley Ice Centre is a unique venue in the southeast of England with two Olympic sized ice rinks used by Ice Hockey League teams as well as numerous other clubs and members of the public.

About Heat Mat

With more than 12,000m² of ice and snow melting systems installed and 22 years' experience of the UK frost protection market, you can rely on Heat Mat to understand your requirements and to specify the system to satisfy your needs. This is why we are the Professional's Choice, the number one supplier of ice and snow melting products to the UK's professional installation market.

Contact us

01444 247020

tech@heatmat.co.uk

www.heatmat.co.uk

www.iceandsnowsystems.co.uk



Heat Mat

Ice & Snow Systems

Heat Mat Limited
3 Danworth Farm, Cuckfield Road,
Hurstpierpoint, West Sussex, BN6 9GL