CASE STUDY

SAFE THROUGHOUT THE WINTER.

Open space heating for mastic asphalt Shopping Centre Alpenstraße - South Salzburg.

THE SITUATION AT THE OUTSET.

The Shopping Centre Alpenstraße (SCA) in the south of Salzburg was demolished in 2012 and rebuilt from scratch. The open architecture of the multi-storey car park leads to ice formation and snow drifts in the entrances and exits in winter. ETHERMA open space heating ensures safe operation in the shopping centre's multi-storey car park during the cold season.

THE CHALLENGE.

The angle of incline of the entrance and exit routes in the car park posed a major challenge. A traditional installation - laying the mats on a concrete base - was therefore not possible. A special solution was developed together with the construction companies Swietelsky and Sika.

This ensured a structurally perfect solution and safe operation.

THE ETHERMA SOLUTION.

Together with the construction companies Swietelsky and Sika, ETHERMA faced the difficult challenge posed by the construction of the new SCA shopping centre.

A bespoke specialised lining was developed together for the installation of the heating mats and laid on the concrete. This made it possible to ensure that the ETHERMA heating mats would not slip and float when laid onto the mastic asphalt.

A core component of the complete solution is the installation of a humidity and temperature-dependent control system. This fully automatic control guarantees a safe function and at the same time operating cost savings. Ice formation and snowfall are detected early and thus ensure an accident-free winter.

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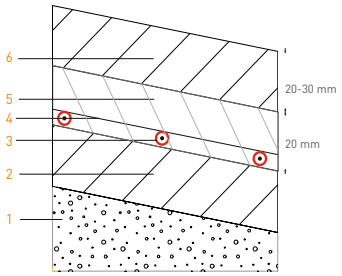
THE WORKMANSHIP.

Innovative stitching technology and the ETHERMA carrier mesh guarantee simple and quick installation.

The glass fibre net and armoured braid prevent the heating conductor from floating upwards. The stitching technology with Kevlar-threads guarantees a 100 % solid installation and the stability of the heating mat. The mat need not be fixed on the underfloor. The optimum thickness of the asphalt is 2 x 2 cm and must be applied in two steps.

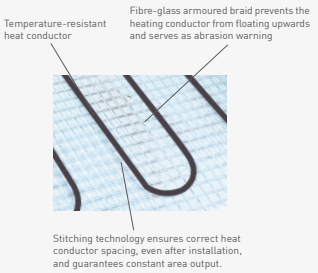
The heating mat GSN consists of a glass fabric net for armouring the cables with a dipole heating conductor sewed upon it. The allowable temperature of the appliance is 240° C for 35 minutes.



1 Unterbau
2 Gußasphalt oder Tragebeton
3 ETHERMA Heizmatte GSN
4 Glasseiden-Panzernetz
5 1. Lage Gußasphalt 20 mm, Körnung 0-4 mm
6 2. Lage Gußasphalt mind. Stärke 20-30 mm Körnung 0-8 mm

ETHERMA GSN - HEATING MATS FOR MASTIC ASPHALT - PRODUCT BENEFITS

+ Stitching technology guarantees simple and quick installation
+ Carrier mesh prevents the heating mat from floating during installation
+ Only one access line for an easy installation
+ Abrasion warning and improved flexural and tensile properties due to fibre-glass armoured braid
+ Custom-manufactured in our plant



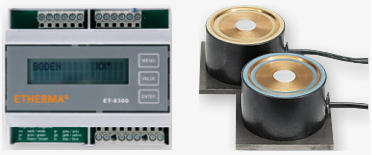
ETHERMA HEAT CONDUCTOR - PRODUCT BENEFITS

+ Connection line custom-made
+ Abrasion warning
+ Improved flexural and tensile properties
+ The heat conductor is resistant to spherical acids, bases and faeces

A Heating cord
B Heating cord
C Inner insulation - Fluoropolymer (PFA)
D Aluminium shield + protective earth conductor
E Outer insulation radiation cross-linked LSZH

ET-8352F - OPEN-AIR CONTROL SYSTEM - PRODUCT BENEFITS

+ Optimisation of operating costs through humidity and temperature-dependent control
+ Early detection of ice formation and snowfall creates safety
+ Fully-automated control of the open space heating



EXPERTISE AND QUALITY FOR MORE THAN 30 YEARS.

CERTIFIED ETHERMA SINCE 1981 QUALITY

With ETHERMA, you have an expert partner for your heating solutions with more than 30 years of experience. You will benefit from our continuous innovation, high-quality products and modern design. We offer an extensive range of services to support you and can find a product solution suitable for your individual requirements. As an Austrian business active internationally, our electrical heating systems are made to measure, in-house.

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