SILT Casino
Middelkerke, BE

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Case Study

Property Owner
Debuild bv

Main Contractor
TM Casino Furnibo - Democo

Architect
Bouwgroep Nautilus - Zwarts & Jansma (ZJA) + Bureau Bouwtechniek & Oever Zaaijer

Acoustic Consultant
VK Architects & Engineers

Structural Engineer
COBE ingenieurs bv

Stravifloor Batten

- Resilient floor batten system for the support of dry (panelized) floating floors

OVERVIEW

Middelkerke is abuzz with excitement as the construction of the magnificent SILT Casino unfolds. Set to become the region's premier entertainment destination, SILT Casino promises an unparalleled experience for visitors. Boasting a sleek and modern design, this architectural marvel will feature state-of-the-art gaming facilities, luxurious accommodations, world-class restaurants, and captivating entertainment options.

SILT Casino will house a unique spectacle room adorned with a stunning green roof. This innovative feature allows visitors to take leisurely walks atop the roof, where they can marvel at the breathtaking views of the sea. Not only does the green roof provide an immersive experience with nature, but it also serves a practical purpose. To ensure optimal acoustical isolation, the roof has been acoustically decoupled, enhancing the overall sound quality within the spectacle room.

AT A GLANCE

CHALLENGES

- The base floor in concrete is slightly curved in several directions, which made it difficult to install the system
- The base floor is made of concrete and steel I-beams, partly sticking out of the concrete, so the direction of the resilient battens had to be adapted
- Strong coastal winds and bad weather often hindering the installation

BENEFITS

- Light, flexible, and quick to install floating floor
- High acoustical performance thanks to the mass-spring-mass filter with fr < 20Hz;
- Contact surface between the floating floor and the base floor are strictly minimized thanks to the elastomer strips with a wavy surface

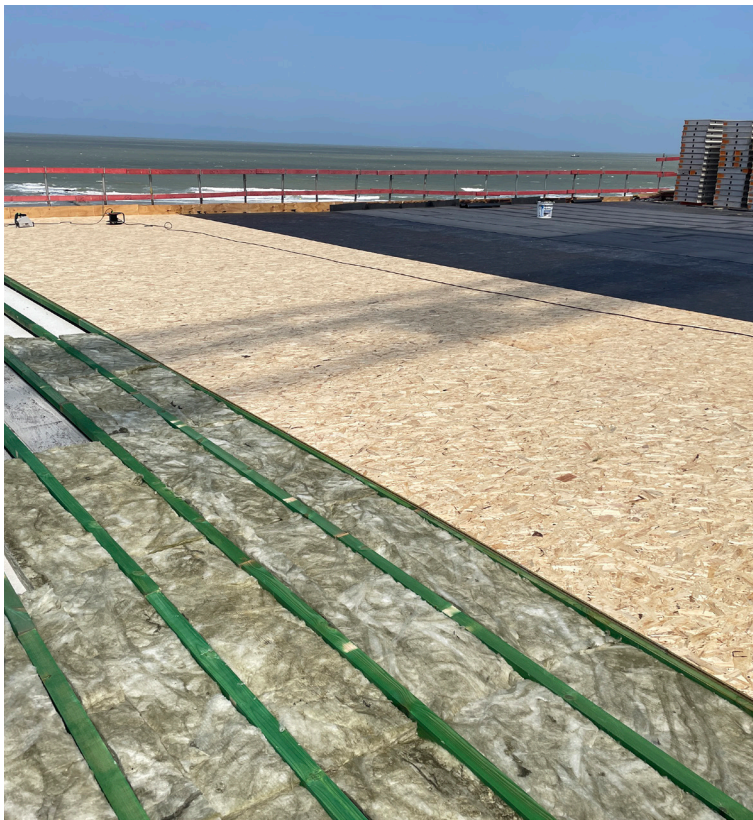
SOLUTION

To ensure optimal performance and comfort, a specific type of Stravifloor Batten was meticulously chosen for the construction project.

The innovative design incorporates a double strip Stravifloor Mat-W17$_a$ rubber, featuring a wavy pattern and a maximum thickness of 34 mm, as resilient support. This rubber layer is strategically positioned beneath the 63 mm high wooden battens. These are spaced at intervals of 0.4 meters. To further enhance the flooring system, a layer of 22 mm OSB was added, followed by a watertight membrane to ensure protection against moisture.

In the void between the wooden battens, a 75 mm layer of mineral wool was installed. This additional layer serves the crucial purpose of preventing the formation of standing waves, ultimately enhancing the acoustical performance of the flooring system. By incorporating these details and utilizing high-quality materials, the project aims to create a floating floor system that combines resilience, stability, and superior acoustic properties.

1043 m²
Stravifloor Batten



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