



The SSE Hydro Arena, Scotland, UK

- **Location:** Glasgow
- **Year:** 2013
- **Client:** Scottish Exhibition Centre Ltd. (SECC)
- **Architect:** Foster and Partners
- **Noise consultants:** Sandy Brown associates
- **Contractor:** Lend Lease Construction/Roskel Contracts

CASE STUDY: THE SSE HYDRO ARENA, SCOTLAND, UK

Improving the acoustic performance in geometrically complex plenum ceilings with a versatile SIDERISE solution.

The challenge

An acoustic performance upgrade was required to suit the complex geometry of the arena's bespoke British Gypsum sloping fire rated boarded plenum ceilings. As the ceilings' design offered restricted access, an exclusively boarded solution would prove unsuitable. SIDERISE was approached by Roskel Contracts for its technical expertise in acoustics to find a bespoke solution that would meet the acoustic performance criteria requirements.

Our solution

SIDERISE used its acoustic barrier/damping mat solution SIDERISE BM/P5/BOAK and BM/P10/BOAK. Overlapping sheets were fitted from below through the structural framework. The SIDERISE Boak sheets were fixed and sealed to provide a continuous membrane which could be shaped and installed to suit the services and structural elements. The result was a fully compliant system.

SIDERISE Boak BM P5 and P10 sheets are thin polymeric sound barriers that provide exceptional flexibility and offer optimum sound reduction and dampening performance. They were originally designed to improve the acoustic insulation performance of metal, wood and plastic being particularly effective at reducing the effect of coincidence dip resonance in these materials.

They are commonly used in construction applications including high performance wall and partition constructions; external cladding to ducts/pipes; component in built up metal roof and cladding systems.

Designed by Foster and Partners as part of the Queen's Dock redevelopment project, the SSE Hydro Arena has proved to be one of Glasgow's most prestigious entertainment venues.

Awards

- 2013 Scottish Style Awards winner - "Most Stylish Entertainment Venue"
- 2014 AISfpdc Project of the Year Award
- 2014 AISfpdc gold award given to Roskel Contracts in the Judges Award category

"We came to Siderise on the Hydro Arena as we had concerns that a buildable solution, which met the acoustic performance criteria, could not practically be achieved with an exclusively boarded solution. Having worked with them previously we were confident that they had the range of products and the technical expertise to assist us in developing a practical solution and liaising with both the Architect and Acoustic Consultant. From concept, through mock-ups and the final site installation they provided us with good advice and back up on this extremely complex and challenging project."

Mike McLaughlin, Managing Direction (Joint), Roskel Contracts