



## Building envelope and ComFlor® case study

### The Boilerhouse, Grantham

Client: Institute of Materials, Minerals and Mining (IOM3)

Main contractor: K&B Rouse

Cladding system: Stratascreen®, Trimapanel®

Decking system: ComFlor® 225

Colorcoat® product: Colorcoat HPS200 Ultra®

**An extensive rebuild and refurbishment programme that has transformed an ordinary brick built structure into a visually engaging events venue benefits from the specification of building envelope and structural flooring solutions by Tata Steel.**

The Boilerhouse in Grantham, Lincolnshire, features a Stratascreen® rainscreen facade system, Trimapanel® insulated wall cladding panels and ComFlor® 225 deep composite flooring system.

The end result is a high performance, reliable and versatile structure, built without compromise.



Up until the early 1990s, the Boilerhouse was the source of power for one of the East Midlands' largest manufacturing facilities that then occupied the site.

The Institute of Materials, Minerals and Mining (IOM3) acquired the original building in 2007 and set about transforming it from an ordinary brick built structure into an architecturally striking, steel-clad events venue that now plays host to conferences, awards ceremonies and exhibitions on a daily basis.

The project itself involved an extensive rebuild and refurbishment programme to transform the original building into three distinct spaces: The Theatre, The Gallery and The Auditorium. The IOM3 specified the extensive use of steel throughout the building for both the external building envelope and the internal structures. Steel was the material of choice due to its aesthetic qualities coupled with its structural performance and value for money.



As part of the transformation of the Boilerhouse, Stratascreen® – an advanced composite rainscreen façade system, Trimapanel® and ComFlor® 225 – a deep composite flooring system, all from Tata Steel, were specified.

Casey Rafferty, of The Institute of Minerals comments: "Key to the successful delivery of the project was ensuring attention was paid to the use of cutting-edge materials throughout the build programme - representing the individual specialisms of Institute members. The Stratascreen® façade system was individually engineered with bespoke panels manufactured by Tata Steel. This provided us with the flexibility of design we required for the modern and striking vision we had for the project without compromising performance and reliability."

The Stratascreen® façade system is able to provide limitless permutations of gauge, insulation and colour and is ideally suited to structures that require differing building performances whilst maintaining a uniformity of aesthetic appearance.

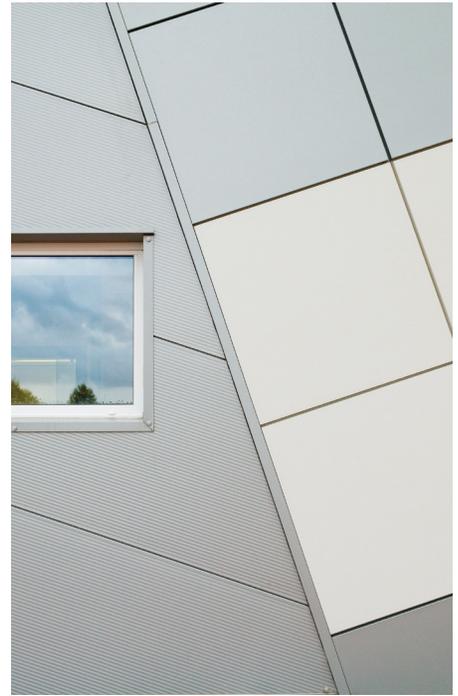
Forming the primary rain barrier of a multi-layered wall system, Stratascreen® creates a ventilated air cavity between the rainscreen and the backing wall designed to provide pressure across the outer skins, inhibiting air borne moisture across the cavity.

For this project, 300m<sup>2</sup> of Stratascreen® in Colorcoat HPS200 Ultra® in Sirius were used along with 28mm aluminium honeycomb to create an eye-catching external envelope.

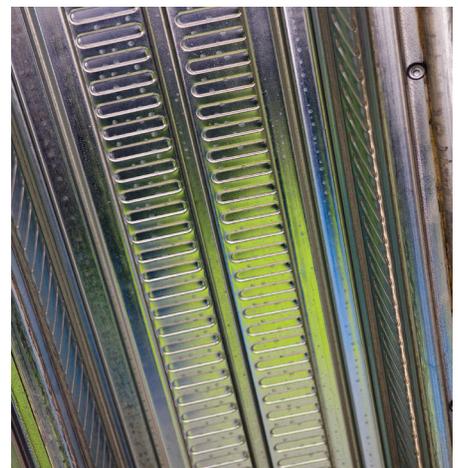
Alongside the specification of the Stratascreen® façade system, Tata Steel supplied the project with all of its flooring needs.

Michael Rouse, Managing Director K&B Rouse, the main contractors on the project, comments: "Specification of the ComFlor® 225 flooring system from Tata Steel was the ideal choice for this project.

"It enabled us to be confident in meeting the demanding design requirements of the building, whilst guaranteeing the structural performance of the finished project."



There are many factors that need to be balanced when designing and constructing a striking building that must also meet the very practical requirements of an events venue. In the case of the Boilerhouse, key to achieving this was using products and materials that provided the freedom to explore architecturally creative design whilst meeting fundamental practical considerations such as structural performance, durability, flexibility and cost.



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