



Case Study:

Forresterfield-Airport Link, Perth, WA



Architects: GHD Woodhead with
Weston Williamson + Partners

Builders: Salini Impregilo and NRW

Contractor: EXZO Pty Ltd

Products:

Siniat:

13mm Mastashield

13mm Trurock

13mm Trurock HD

13mm Watershield

16mm Fireshield

16mm Trurock

25mm Shaftliner

Promat:

Promatect 100/20mm

Promatect L500/52mm

Durasteel 50+

Systempanel 2G

Cafco Fendolite MI

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Background

Commissioned by the Public Transport Authority of Western Australia, the Forrestfield-Airport Link was one of Western Australia's most significant and transformative public transport projects.

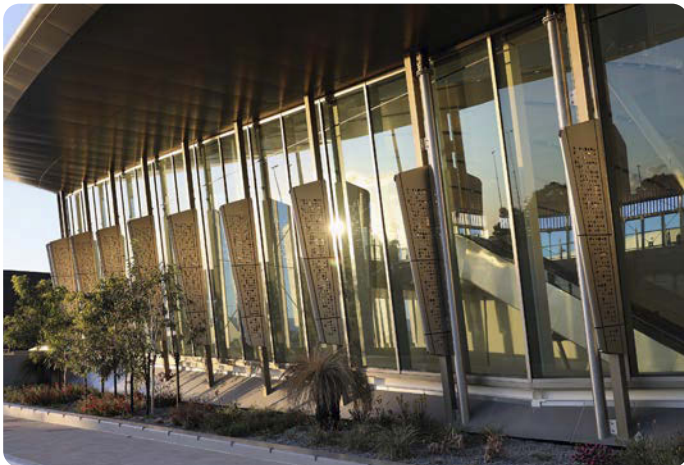
The undertaking has seen Perth's eastern suburbs linked by rail for the very first time, connecting the current railway east of Bayswater to Forrestfield, with 8.5km of new tracks, 8km of which are in tunnels.

Siniat Australia – a part of Etex, a global lightweight construction leader – were engaged to provide engineering services and supply premium products for the project, alongside their sister brands, Promat and Kalsi.

Challenge

"The extensive underground infrastructure includes stations, twin-bored tunnel, cross passages and egress shafts and fire safety – and fire ratings as an extension – were absolutely critical," says Mark Hutchison, Siniat's Sales Manager in WA. He explains that the required Fire Resistance Level was mainly 120/120/120, which indicates 120 minutes structural adequacy, 120 minutes integrity and 120 minutes insulation.

The original design specified fibre cement sheeting as an impact resistant, non-combustible insulation material in the walls, ceilings and floors of the tunnels, ingress and egress shafts. "I had several meetings with the Salini Impregilo-NRW JV Project Architect in the design stage and through the construction phase," says Mark. "And together, we redesigned the wall and ceiling package."



Photos courtesy of Public Transport Authority of WA.



Solution

The stringent fire requirements made the Siniat product range the perfect choice for the project.

"We provided various products, including fire-resistant plasterboard, to help meet the required fire rating," says Mark. "Fibre cement was replaced by Siniat Trurock HD, which is a safer and more sustainable option. We also used products such as Promat's Promatect for fire rated floor and ceiling lining applications."

When it came to swapping out the fibre cement for Siniat's Trurock HD board, the benefits were almost immediate. "Trurock HD is far easier to work with as it can be cut without the use of power tools and therefore creates no dust," says Mark. "Plus, the product's durability, water resistance, fire and acoustic properties assist in reducing layers and simplifying wall types, while still providing the required water resistance, impact, fire and acoustic performance criteria."

"Trurock makes life a lot easier than cutting fibre cement," says Enzo Scarvaci, Director of the main ceiling and wall contractor, EXZO. For him, the ease of installation was undoubtedly one of the most important benefits. "Using a product with the same impact ratings for what was required on the project just made life a lot easier. You also eliminate a lot of the cracking of the joints, which you tend to find when you flush out fibre cement. And the quality of the finish looks a lot better than a fibre cement finish, where you get a lot of imperfections in the board."

"In addition, by combining both Siniat plasterboard and metal framing components we were able to offer a full system warranty on the Siniat wall and ceiling systems providing peace of mind for the main contractor and client," says Mark.

"That made this project so much easier," says Enzo. "Instead of going to five different businesses, trying to get warranties for individual products, I was able to just get a single warranty that covered everything. It saved me time, money, and a lot of complexity. There's so much benefit to working with Etex brands like Promat and Siniat. I'd definitely recommend them to anyone."