

## Project Spotlight



### Hitachi Newton Aycliffe, UK

#### Twintec complete high profile train facility for Hitachi

**Twintec, SFRC 'jointless' flooring specialists, has completed a 41,000m<sup>2</sup> project with Shepherd Construction for a landmark train assembly facility for Hitachi in Newton Aycliffe.**

The £82 million plant is Hitachi's first European train factory, one of North East England's most significant investments in 30 years and is the first train manufacturing plant built in the UK for decades.

Twintec specialises in technically complicated projects that require significant design input coupled with highly skilled construction skills and this project is an excellent example on both accounts.

The 'jointless' SFRC slab required 5,560m of train rails to be embedded within the slab surface and whilst the warehouse and testline areas were constructed with the direct discharge of the concrete and levelled by laserscreed, the assembly, traverser and office areas required the concrete to be pumped and the slab laid by hand-lay techniques.

In addition to the train rails there were 1,500 halfen channels constructed in the concrete to allow moveable staging to be installed. The entire building required a waterproof membrane which increased the complexity of the detailing and construction methods.

Each area demonstrates different loading requirements and design solutions with slab thicknesses varying from 150mm to 250mm to meet specific operational requirements.

Twintec offer a unique total responsibility package of Design-Build-Guarantee, with an in-house engineering team, highly skilled workers, PI insurance and a 5 year warranty.

#### Project Data

|                  |                       |                  |                      |
|------------------|-----------------------|------------------|----------------------|
| End User:        | Hitachi               | M <sup>2</sup> : | 41,000m <sup>2</sup> |
| Main Contractor: | Shepherd Construction | Fibre Type:      | AFT 08/55            |
|                  |                       | Slab depth:      | 150, 175, 200, 250mm |
| Consultant:      | Dewar Associates      | Completion Date: | March 2015           |

Contact the Twintec business team for further information:

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