

**HITACHI RAIL EUROPE, NEWTON AYCLIFFE**  
**EUROCLAD LIMITED**



One of Euroclad's most impressive and successful installations of metal roof and wall cladding was the new Hitachi Rail Europe manufacturing facility. Nearly 900 new railway carriages will be made in the brand new factory constructed at Merchant Park, Newton Aycliffe.

Representing an £82 million investment, the facility for Hitachi Rail Europe is creating around 730 jobs in the production of high-speed, commuter and metro trains. The site will also be home to a research and development facility and 1.1km of overhead electrified test track.

The choice of 9800 square metres of Euroclad's Elite 51 wall system and 38,600 square metres of Euroclad's Elite 1 roof system gives some idea of the sheer scale of the new building. Elite Systems are perfect for this type of construction, providing an attractive finish combined with adaptable performance levels, whilst reinforcing the project's environmental credentials, with systems having been subject to a full cradle-to-cradle lifecycle analysis.

The profiled steel sheets were manufactured to order at Euroclad's Cardiff manufacturing facility and delivered to site along with all other components of the Elite roof and wall systems. This single-source solution ensures that the performance of different constructions can be declared with confidence and allows BIM compatibility.

Both the roof and walls were manufactured from Colorcoat HPS200 Ultra pre-finished steel in Goosewing Grey; a very popular material and colour choice for this kind of construction and one with a guarantee of up to 40 years directly from Tata Steel to the building owner, when used in a conventional external building envelope application.

In addition to the 44,000 square metres main building and test track, the construction phase involved the relocation of 370,000 square metres of sub soil and natural rock, which stayed within the site. Products used in this construction included the vast areas of steel roof and wall cladding, as well as a 25kVa power supply, a total of 2000 tonnes of steel (comprising 77,700 components) and 3772 Trina solar modules, which will generate a targeted 1MW of electricity.

The 31.5 acre site holds a special significance in the history of passenger rail, with the track adjoining the site being the one that was used by Robert Stephenson and Company to run Locomotion No. 1, the first steam locomotive to carry passengers on a public line in 1825.

In an order placed by the Department of Transport for its Intercity Express programme, 112 of the 122 Class 800/801 train sets (totalling 866 train carriages) will be built at the site, with an ongoing maintenance programme for the next 27.5 years. The first trains will enter revenue-earning service on the Great Western Main Line in 2017 and on the East Coast Main Line a year later.

Hitachi Rail Europe is also contracted as the supplier of trains to Abellio's ScotRail programme where the majority of the AT200 commuter trains (46 three-car trains and 24 four-car trains) will also be built at the new facility in County Durham. Further new generation trains are also destined for service across Europe.

