

TESCO DISTRIBUTION CENTRE, DAVENTRY

C A GROUP LIMITED



CA Group has completed work on the 88,000 square metres rail-connected distribution centre at Prologis' Daventry International Rail Freight Terminal (DIRFT II) site. The facility will take its customer, Tesco, one step closer to its goal of becoming a zero carbon business by 2050.

The new distribution centre was designed to achieve BREEAM 'Excellent' accreditation and an EPC 'A' rating. Prologis' design and construction process stipulates that all embodied carbon is measured and reduced. CA Group responded to this requirement by supplying pre-finished steel with Confidex Sustain®; since the product's embodied carbon emissions are 100% offset, the building has a carbon neutral envelope.

Prologis then takes the process to the next stage seeking to mitigate further unavoidable embodied carbon emissions by supporting environmental charity Cool Earth's work to reduce tropical deforestation.

According to CA, Tesco's approach to the reduction of CO2 emissions is having positive impact all the way down the supply chain. The targets set by Tesco, and other companies committed to aggressively reducing their carbon emissions, can only be achieved if the same rules apply to each link in the supply chain.

Over the past five years CA has successfully reduced its CO2 emissions, resulting from the distribution of materials used in its roof and wall constructions, by more than 35% by changing their procurement and delivery processes.

Instead of scores of components being shipped via suppliers to site they are sent directly from CA Group's manufacturing site in Evenwood, County Durham. This process maximises deliveries per vehicle which has, in turn, reduced the number of physical deliveries to site from as many as 230 to just 100 in the case of the Prologis scheme.

For the DIRFT II project, Prologis wanted a building with a carbon neutral envelope, with a 25-year warranty. The building had to achieve an air tightness of $2.5\text{m}^3/\text{hr}/\text{m}^2 @ 50\text{Pa}$ and actually tested $1.47\text{m}^3/\text{hr}/\text{m}^2 @ 50\text{Pa}$. High levels of air-tightness reduce the need for warehouse heating, enhance the EPC rating and help greatly in ensuring compliance with Part L.

The CA approach covers the lifespan of the building from cradle to cradle with a particular focus on the end of life disposal costs of some hazardous materials, a subject which is expected to become one of the biggest issues facing the industry today.

In its cradle to cradle approach, CA Group has ensured that when a building reaches end of life status, all elements are either re-usable or can be recycled, in which case the system is cash positive and will not have a punitive effect on the building owner.

Project details

Project:	DIRFT II, Daventry
Client:	Tesco / Prologis
Project Architects:	SGP Architects
Main Contractor:	Volker Fitzpatrick
Roofing Contractor:	CA Roofing Services
System Manufacturer:	CA Building Products
System:	Twin-Therm® Roof & Walls
Material:	Roof in Corus Colorcoat HPS200 Ultra® in Goosewing Grey Walls in Colorcoat Prisma® in Oyster and Alaska Grey



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