

CSC certificate for Cargoshell Reefer

Cargoshell BV has been awarded a CSC certificate for its composite panel reefer container. The Cargoshell dry container was CSC certified in 2012, and this month the Cargoshell Reefer was awarded the CSC certificate from DNV GL at Drehtainer in Valluhn, Germany. The company claims it is “the first composite sea container to meet these strict standards”.

The Cargoshell Reefer uses fibre-reinforced composite panels for walls, ceiling and door, together with its own design “T” panels for the floor. Dr.ir. Albert Ten Busschen, who is responsible

for the Cargoshell design, said the composite panels are built “like an integral sandwich, with reinforced outer skins and an insulating inner layer” in a single manufacturing process, and do not have a risk of delamination. “What’s more, we also retain the other benefits of the material, such as its lightness, strength, resistance to corrosion, hygiene and radio transparency,” said Ten Busschen.

“The fibre reinforcement means we create a material that has great strength and low weight. The fibres can be built up and laid in different directions.

In most of the parts, we use glass fibre; in the supporting columns and corners of the container we use carbon fibre, which, despite its low weight, has outstanding strength and rigidity.

“By making the supporting columns from carbon fibre, we were able to pass the stacking test, in which each of the corner posts is subjected to a compression force of no less than 85t.”

Unlike existing container manufacturing, composites are well suited to construction on a smaller scale, with lower capital investment and workers with a

different skill set. “These rather small and flexible manufacturing units, with a low breakeven point, can be strategically placed where the reefers geographically are required. Building in the customer’s back yard,” Cargoshell added.

With regard to cost, Cargoshell declined to give specifics, but added that when considering total costs of ownership over the life of the asset, Cargoshell is “competitive in the market”. The company does not intend to manufacture the design itself, and is looking for companies interested in acquiring its intellectual property.



Composites can improve the insulation value of a reefer container