PRODUCTS IN ACTION

RGX Container

ASM Lithography (ASML) is a specialist in developing and manufacturing “wafer step machines” (wafers). A wafer is a big, heavy (more than 16 tons) and technically advanced machine producing small electronic devices used in computers, cameras, cellular phones etc. ASML need a 20 ft intermodal air cargo container with climate control (MRCCC). The container is used for transporting wafers both by air as well as by truck, and therefore had to be certified by The Swedish Aviation Authorities (SCAA) and the Federal Aviation Authorities (FAA) in USA, and also meet requirements according to ISO-1496-2.

The strength requirements on the floor of the container are severe as the heavy wafer step machine is anchored into it. The floor has to be able to with stands the load associated with the accelerations and decelerations of airborne transport as well as having very good insulation properties. The only possible solution was a sandwich construction with DIAB core materials that provide both excellent mechanical properties as well as thermal insulation. Tests with other core materials were unsuccessful both regarding the structural and thermal requirements. The floor is manufactured with aluminium skins on each side of a Divinycell H-grade core material in different densities to produce the most optimised construction. This produces a lightweight yet extremely though sandwich that lives up to the severe strength requirements on the floor.

Core material:	**Divinycell® H-grade in different densities**
Length:	6.0 m
Width:	2.4 m
Load capacity:	9200 kg
Face material:	Aluminium
Manufacturing method:	Vacuum bonding
Manufacturer:	Envirotainer AB
Structural Design:	DIAB Technical Services

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