

DISCOVER THE NEW WAY

lightweight maritime components





 Two innovative rivercruise ships Viking Beyla and Viking Astrild, equipped with EFW lightweight panels in cabins and corridors.

TRIPLE INNOVATION

Completely new designed lightweight panels of Elbe Flugzeugwerke GmbH are a significant innovation in maritime industry.



fire-safe



noise absorbing

The new panel combines up to 30 % weight reduction and considerably improved mechanical characteristics compared to standard cabin panels (e.g. a weight saving potential of approx. 300 tons for a cruise liner equipped with 1500 passenger cabins).

Panels width up to 1200 mm and curved panels open new design possibilities and reduce assembly cost.

Minimized fabrication tolerances allow a high level of cabin pre-manufacturing and provide reliable and reproducable product quality. As special service for our customers we integrate further features during pre-assembly: reinforcements, cable raceways, additional installations, hatches and doors etc.

The wall and ceiling panels are DNVGL and RMRoS certified for Class B-15.



MARITIME PANEL LAY-UP

The panel is a sandwich structure composed of structural layers and an innovative glass core. Additional layers provide fire protection and surface decoration.



 EFW's maritime panels enable an almost seamless cabin design and provide a positive sense of space.

WHY USING MARITIME COMPOSITES?

Lighter interiors enhance efficiency and customer comfort on board.

 Panel width up to 1200 mm Improved fabrication tolerances Increased variability in ship and cabin design Design solutions for hatches and access doors 	 Improved handling abilities due to increased stiffness and reduced weight Easy treatment with standard wood working machines during production and in service 	 Insensibility against moisture and putridity Easy to repair Ecological base material No emission of cancerogenic respirable fibres
weight strength stiffne	ss fire & smoke reliability	acoustics non-toxicity environment
MECHANICAL PROPERTIES	STANDARD	MARITIME PANEL
Shear strength	DIN EN 14509	0,17 MPa
Modulus of shear	DIN EN 14509	10,96 MPa
Tensile strength	DIN EN 14509	0,08 MPa
ACOUSTIC PROPERTIES		
Sound Insulation Index	DIN EN ISO 140-4	up to 45 dB (double layer of 27 mm panels)
FLAMMABILITY	REEX.X	
Panel wall/ceiling	IMO FTP Code 3/DIN 4102-8	Class B-15 GL certified: Cert. No. 60 882-13HH 60 880-13HH
ADDITIONAL PROPERTIES		
Panel thickness	27 mm and 52 mm possible	
Panel weight	9,4 to 11,5 kg/m² depending on requirements (panel thickness 27 mm)	
Sensitivity against water	Insensibility against moisture and putridity	



CONTACT US

Elbe Flugzeugwerke GmbH Composite Structures & Interiors Grenzstrasse 1 · 01109 Dresden / Germany

T+49 351 8839-3276

F +49 351 8839 - 3103 composites@efw.aero

www.efw.aero

IMPRINT

Concept and design Heimrich & Hannot GmbH

Image credits All rights reserved © Elbe Flugzeugwerke GmbH, Courtesy by Neptun Werft GmbH & Co. KG, Liaurinko – Fotolia.com, vvoe – shutterstock.com

Printing Lößnitz-Druck GmbH

All information and data provided within this brochure are reference values and subject to alterations.