

press release

seele cover supplies ETFE roofs for new AIDAperla

A total area of 4,000sqm of ETFE roofing has been installed on two ships, the AIDAperla and the AIDAprima, by membrane specialist seele cover. The use of ETFE cushions in shipbuilding is a new development.

Obing, 6 July 2017. Construction of the new AIDAperla began in Japan in 2013. Following the journey to Europe by the 300m long ship built at the Mitsubishi shipyard in Nagasaki, it was ceremoniously baptised on 30 June 2017 in Palma de Mallorca against the backdrop of the city's night-time skyline.

As in the case of the AIDAprima, membrane specialist seele cover was responsible for the design, fabrication, delivery and erection of two three-layer ETFE foil roofs for the pool and leisure areas on board the AIDAperla. The total area of the four ETFE roofs on the two ships is about 4,000sqm. These are transparent, movable roof segments that can be opened. So-called retractable roof structures are a speciality of seele cover. Such designs with their high corrosion resistance involve, for example, power chains with flexible air supplies, drive systems with electric geared motors, toothed belt drives, pneumatic seals and locking devices, control technology with inductive sensors and remote controls.

The vibrations of the ship's engines, acceleration forces due to the motion of the ship, the high wind loads some 50m above sea level, the marine climate with the high salt concentrations and the changing climate zones place high demands on the materials and the structural analysis. In order to handle these special demands, seele cover developed a new type of screw-less clamping bar for the ETFE cushions.

In terms of sustainability and durability, the use of ETFE foil roofs in shipbuilding represents the best answer. Pneumatic ETFE systems attenuate and absorb the effects of the wind and have a self-extinguishing effect in the event of a fire. The foil has an anti-adhesive surface and so is self-cleaning because dust and dirt hardly sticks to it – and any that does is simply washed off by rainwater. The design life of an ETFE roof is about 25–30 years and the foil can be fully recycled.

seele cover, based in Obing, Germany, is recognised as an expert when it comes to innovative, sustainable membrane structures. The use of ETFE foil roofs in shipyards represents a new departure. seele's involvement in unique projects underpins its pioneering role in innovative membrane construction.

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seele group

The seele group of companies, with headquarters in Gersthofen near Munich, is one of the world's top addresses for the design and construction of façades and complex building envelopes made from glass, steel, aluminium, membranes and other high-tech materials. The technology leader in façade construction was founded in 1984 by master glazier Gerhard Seele and steelwork engineer Siegfried Gossner.

Based on a profound understanding of design and materials, seele provides everything necessary for ambitious one-off designs true to the original ideas of engineers and architects. The seele group offers its building sector and industrial customers a complete package of services, ranging from R&D, individual advice and joint conceptual design right up to the planning, detailed design and construction of their projects. seele's own production plants for technologically challenging designs and the group's own erection crews on site provide a guarantee of the very highest quality "made by seele".

About 1,000 employees work at the seele group's 12 locations around the world, together generating an annual turnover of more than €200 million.

seele cover GmbH

Based in Obing, Germany, seele cover is recognised as an expert when it comes to innovative, sustainable membrane architecture as well as lightweight plate and shell structures for new roof and façade solutions. Besides carrying out R&D, structural analysis and design, this is also the site of the membrane fabrication plant. Moreover, this location can provide the entire range of services for membrane architecture – from consultancy to logistics to erection.

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Visual material



New AIDAperla with ETFE roofs of seele cover. ©AIDA



The total area of the four ETFE roofs on AIDAprima and AIDAperla is about 4,000sqm. ©AIDA

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Movable roof segments on AIDAprima and AIDAperla. ©AIDA



Full-service provider for membrane construction on more than 1,000sqm of floor area at seele cover in Obing/Germany. ©seele/René Müller