

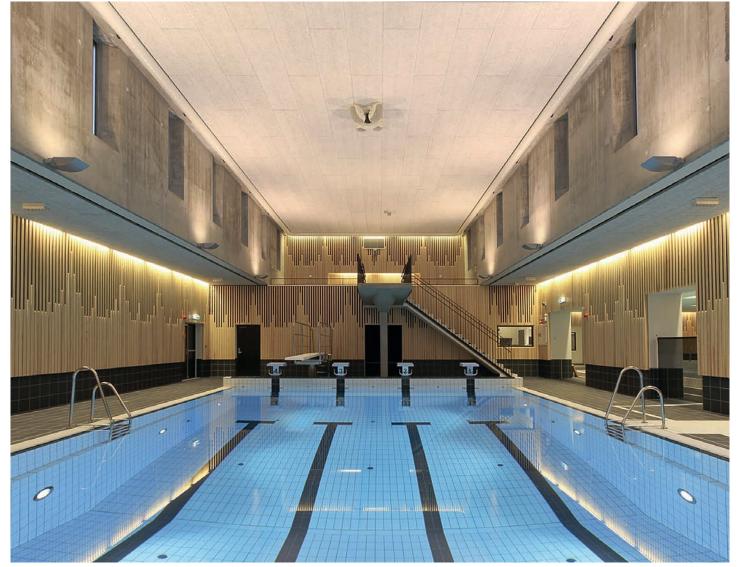
Paint with Pride

PAINTING WOOD 16VSETTE GORI INDUSTRY

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Case study

Collaboration for sustainable solutions

Sustainability is an integral component of our company philosophy, therefore we are proud to be able to document our sustainable initiatives with a Cradle-to-Cradle certification," says Peer Leth, managing director of Troldtekt A/S.

The Danish company, based in Tranbjerg near Aarhus, manufactures acoustic panels which are 100% made of the natural raw materials wood and cement. They are installed as ceiling and wall panelling in schools, kindergartens, swimming pools, concert and event rooms, commercial and industrial buildings, and also private resi-

dences. The advantages are compelling: excellent sound absorption, pollutant-free, breathable, and flame resistant.

Troldtekt panels are also successful outside Denmark and a significant share of production is now exported. The most important export countries are Germany, the Netherlands, Switzerland, Norway and Great Britain. The company recently expanded the production capacity in Denmark, and founded a subsidiary in Hamburg.

High sustainability standards

Troldtekt has long placed great value on



Troldtekt CEO Peer Leth

environmental friendliness and sustainability. This can be seen in the FSC® and PEFC certification, documented contribution of Troldtekt products to sustainable construction certifications such as LEED, BREEAM and DGNB, and the environmental award of the Danish construction industry, which Troldtekt was awarded in 2010. In October 2014 Troldtekt received the CSR Strategy Award of the Danish CSR Foundation for making sustainability the focal point of their business strategy



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The design concept Cradle-to-Cradle plays a particularly important role. Its central idea is that the materials used should not end up as garbage after the end of the product life cycle, but rather become raw materials again in a closed metabolic cycle. "When we first started working with the Cradle-to-Cradle principles we thought of it as an environmental label," says Troldtekt Managing Director Peer Leth. "But then we saw the opportunities that the concept offers us to develop even further. It creates transparency and trust in our company and our products. Today Cradle-to-Cradle is an integral component of our strategy."

That's why Troldtekt has entered into cooperation with Vugge til Vugge Denmark and created a roadmap with goals and projects until 2022. With the latest certification in February, Troldtekt improved from silver to gold in many categories, exceeding many of the current objectives already. Troldtekt expect to achieve certification at gold level

in 2017 and to reach platinum level in some categories by 2022.

Sustainability in the coating

The Cradle-to-Cradle certification was also a challenge for the coating. "The C2C concept places high demands on the raw materials which we use for our products," explains Peer Leth. "Successful certification is only possible in close and trusting cooperation with our suppliers."

Troldtekt has been relying on Teknos for more than 20 years. A key product used for their panels is the Teknos Ceiling Paint 7344-20, which was specially developed for coating cement-bonded wood wool. Troldtekt and Teknos R&D departments worked closely together to meet the high C2C requirements. Teknos scrutinised the entire recipe of the ceiling paint and exchanged raw materials. The result is an even more sustainable and environmentally-friendly recipe, which is in accordance with the

high requirements of the Cradle-to-Cradle concept.

Joint development

In the end it's not just the environment that profits from cooperation, but also both parties. "The Cradle-to-Cradle project is an opportunity for all participants," says Peer Leth. "It makes both us and our suppliers stronger in the competition for responsible, future-oriented solutions."

This is confirmed by Tine Kokholm, Group Environmental Manager at Teknos. "The sustainability of products and processes plays an increasingly important role, and we are constantly working on improving ourselves and our products. This includes finding the right solution for our customers' special requirements together. The Cradleto-Cradle certification at Troldtekt is a good example of what this looks like in practice."

www.troldtekt.com

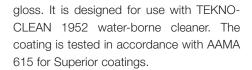




AQUACOAT 2661

Brief process for PVC profiles

Teknos now offers a new effective solution for low-VOC PVC coating in continuous, high-volume production processes. AQUA- COAT 2661 is a water-borne 1K hybrid coating that achieves elastic, hard-wearing surfaces with great durability and stable





AQUACOAT 2661 is available for satin smooth or matt textured surfaces and can be tinted with the TEKNOCOLOR tinting system. The dark colours are really 'cool': They use a special black pigment which reflects infrared light, thus preventing excessive temperatures from building up under the coating film.

Its excellent process time is a major advantage. The coating is sprayed on as a single-layer system and dried at room temperature or force-dried, as desired. The drying time at room temperature is just one hour.

AQUACOAT 2661 is available now.



The Teknos plant in Gdynia (north of Gdansk) is an important production facility for corrosion protection solutions and other industrial coatings for metal. The plant has now been comprehensively renovated over the course of a modernization campaign. A new ventilation system with post-combustion burner ensures environmentally friendly production with safe working conditions. Furthermore, the production and logistics processes were reorganised in order to create space for additional production capacities. This has resulted in a modern production site with an integrated

research and development department. Products produced here include the successful Teknos marine coatings EMAPUR and EPINOX.

The plant had a celebratory reopening on 29 January with 300 guests invited. The festivities included a tour of the facility in Gdynia followed by an evening with music and a dinner at the Baltic Philharmonic. Production at the modernised plant has been launched successfully and is now running full steam ahead.

Opening ceremony in Gdynia factory on 29. January.



ANTISTAIN AQUA 5210

With the new ANTISTAIN AQUA 5210 knot sealer, Teknos is now offering an even better way of keeping discoloration under control when using knotty coniferous woods such as spruce or pine. The sprayable primer is a refinement of the successful ANTISTAIN AQUA 5200-00 knot sealer and offers enhanced protection from discoloration.

Thanks to its special formula, the special primer binds the pigments in the knots, thus effectively reducing the discoloration of the final treatment. ANTISTAIN AQUA 5210 is used in a 3 or 4-layer system with wood preservative and/or intermediate and final treatment, depending on the requirements. The knot sealer has already proven its effectiveness in initial intensive tests in practice.

The product will be available as of June.



Official opening by Teknos CEO Paula Salastie



New sales companies

Enforced activities in the Baltics

Teknos is expanding its business in the Baltic region with new local sales companies. Teknos has already been active in this region since the mid-90s, providing coating solutions for the wood manufacturing industry as well as wet and powder coatings for the metal industry. Our new sales companies in Latvia and Lithuania give local customers even better service and allow us to expand our business in these countries even further.

The Latvian company Sia Teknos commenced operations here in July 2014. The on-location team includes an in-house technical sales engineer for Industrial Wood as of May of this year. The first contact person in Riga is Office Manager Laura Codere.

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There is also a dedicated Teknos team operating in Lithuania. The Lithuanian company UAB Teknos was launched in August 2014. It is based in the central location of Kaunas, just 100 km northeast of Vilnius. The first contact person here is Office Manager Simona Staneviciene.

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Teknos already assumed the paint and coating business of AS Kemiflora in Estonia in 2013. The Estonian company Teknos





OÜ is headquartered near Tallinn and runs

several sales offices in the country. Teknos

nies to represent us on location in important markets," says Timo Makinen, who is in charge of Teknos' business in Latvia and Lithuania. "We already have a good customer base in the Baltic states, and the new sales companies put us on a clear course towards further growth."

This is especially true of industrial wood coatings. "Our Industrial Wood turnover in the Baltic countries has quadrupled over the past few years," says Markku Blommendahl, Export Manager Baltics at Teknos. "We have supported the establishment of modern production facilities, and more and more manufacturers rely on our technical support. Our coating solutions already lead the market for wooden windows and exterior cladding, and now we are gaining new customers with our solutions for the interior."





New Sales Director for Industrial Wood

Teknos Germany

Mark Norris (47) has been the new Sales Director for Industrial Wood at the German Teknos company in Fulda since December. Mark Norris, who previously held a managerial position at a wood preservative manufacturer, brings his long-standing experience from the window and door industry with him. He is assuming responsibility for the Industrial Wood business at Teknos Germany with the product ranges Teknos and GORI Industry. His work focuses on industrial manufacturers of wooden windows, doors and garden furniture, as well as the sale of industrial wood coating solutions for the interior, which Teknos Germany is expanding further. Managing Director André Brunotte was previously in charge of sales management. By appointing a new Sales Director, Teknos is strengthening its sales organisation in Germany and creating new momentum for the further development of the Industrial Wood division.



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Case study

More than just a good coating

Austrian window manufacturer Gaulhofer is one of the most internationally successful companies in the Austrian construction material industry. The window exports impose strict requirements on coatings and use Teknos' water-borne systems for its wooden and wood/aluminium systems.

"The overall package of quality, process and service has to be right," says Christian



Kirchmaier, director of Gaulhofer's production operations in the Austrian town of Übelbach (near Graz). "These are the standards we hold ourselves to – and demand from our suppliers as well. This is especially true of coatings for our wooden and wood/aluminium windows."

The Gaulhofer Group has two production sites. At its headquarters in Übelbach, the company produces wooden and wood/aluminium windows and doors, while its location in Mäder (Vorarlberg) makes PVC windows and doors. The majority of its output goes to the domestic market, but more than one third is also exported, especially to Germany and Switzerland. The company's high-end products include wood/aluminium windows and its Fusionline series with an installation depth of 108 mm and an optimum UW value of 0.65 W/m2K.

Gaulhofer exclusively uses domestic wood for its wooden and wood/aluminium windows, primarily spruce, larch, and, most recently, oak. In the process, the company



focuses on large scale in-house production and bonds the scantlings itself at its own factory. Requirements on coatings are demanding here, too. "For one thing, we need high surface quality which is visually attractive and harmonises with the material," says Christian Kirchmaier. "The coating doesn't just have to be highly durable, it also has to be ecologically sustainable. And we need coating solutions which are easy to process and enable a stable production process."

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Long-standing experience with coating

Gaulhofer coats its wooden and wood/aluminium windows at its site in Übelbach. The plant is equipped with flowcoat systems for impregnation and priming, as well as two automatic spraying systems for opaque, translucent and colourless topcoat treatment. The company relies on solutions from Northern European coating manufacturer Teknos for all of its coating types. Gaulhofer uses a 3-layer system for translucent coatings and a structure with 3 or 4 layers for its opaque systems, depending on wood species. It uses the water-borne products GORI 356 (wood preservative), GORI 615, 616 and 650 (priming and intermediate treatment) as well as GORI 660 (final treatment) in the respective variants for translucent or opaque structures. For its wood/ aluminium windows, the company uses the water-borne conifer oil GORI 475 for wood/ aluminium windows which has a firing effect and accentuates the wood grain.

"The GORI systems get the surface quality and process characteristics just right," says Christian Kirchmaier. "Furthermore, we now have nearly 20 years of experience with these coatings, which means we know that we can rely on its durability."



In addition to quality and process characteristics, it also depends on service. A typical topic is special colours. "Design and individuality always play a major role with wooden windows," Kirchmaier continues. "The trend is towards larger window areas and individual colours which building owners and architects are calling for." So Gaulhofer is increasingly procuring coatings and stains in customer-specific colours which are developed and mixed with the support of Teknos' laboratory in Fulda. Gaulhofer also collaborates closely with its coating suppliers when there are

innovations in materials or production procedures. Before the oak profiles were introduced, the company tested and sampled a variety of coating structures together with application technicians from Teknos before production was launched. "To us, the right coating solution is more than just a good coating," sums up Christian Kirchmaier. "It is a complete packaging which includes surface quality, seamless processes and a dedicated service."

www.gaulhofer.com



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© Andresen Towers

Case study metal coating

Coating meets concept

Constructing wind mill towers normally takes time-consuming, expensive logistics. Large heavy-duty transporters, accompanying vehicles and flashing warning lights, all at a snail's pace.

The Danish company Andresen Towers has now developed a brand-new concept for wind mill towers which simplifies transport and makes it possible to transport tall towers to any location – even on narrow streets and tight roundabouts. The Teknos product TEKNODUR COMBI 3560 met the demanding requirements of Andresen

Towers in this innovative project. The idea for the concept came from employees of the affiliated company Ib Andresen Industri. Andresen Towers was founded as an independent company specifically for constructing the towers.

"We want to do something that no one has done yet: We wanted to develop towers for wind mills which are easy to transport," explains Peter Sylow Madsen, Quality Manager at Andresen Towers. Within a short amount of time, the company had developed an entirely new, patented approach for wind mill towers, making them lighter and thus less expensive to transport.

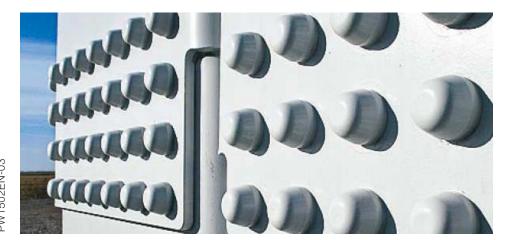
A simple concept

The concept is simple: Instead of welding large, cylindrical elements together which then have to be transported at full length with heavy-duty vehicles, Andresen Towers produces large numbers of small, curved steel elements which can be transported quickly and inexpensively to their destination in normal transport vehicles. The elements are screwed together into towers on-site and enable tower heights of over 100 metres.

Fast production for greater demand

The easily transportable towers were quickly met with great interest on the market. It wasn't long before the company entered into a cooperative effort with Siemens Wind Power, for instance. The interest on the market gave rise to enormous demand. A quick-drying coating was important to keep the production times as short as possible.

"At peak times, we produce about three and a half towers a week. A production output



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like that simply wouldn't be possible with conventional paint - it would have taken up to seven days for the steel elements to dry. This would be expensive, require immense storage space and hinder our workflow," says quality manager Peter Sylow Madsen. That's why Andresen Towers needed an innovative coating partner who offered a quick-drying, durable coating solution - a supplier who also thinks out of the box and helps develop a solution to bring the time needed for in-line coating matching the production process requirements. And this is where Teknos comes into play.

"Teknos gave us very good, qualified support with all technical and practical issues in the coating process," says Peter Sylow Madsen about the collaboration. "Andresen Towers focuses on innovation, and this is just the approach we found at Teknos. From the very outset of our work together, we were impressed by their practice-oriented approach, expertise and high level of service and flexibility," says Peter Sylow Madsen.

Together with Henrik Hansen, Market Manager at Teknos Denmark, he recalls how the

initial steel elements with Teknos coating were produced. "We were here at the plant almost 24/7 for the first three days," says Henrik Hansen. "We naturally wanted to accompany the project as closely as possible and make sure that everything went as planned." There were a few long days, but it was important for both Teknos and Andresen Towers to see how the cooperative work held up in production practice.

Benefits for the environment

Quick drying isn't the only advantage the Teknos solution has to offer. As a coating with a high dry matter content, TEKNODUR COMBI 3560 enables lower-VOC emissions, another aspect which was important to Andresen Towers. "We make products which serve the green market, so Teknos' coating is a good solution for us in terms of environmental factors, too," Peter Sylow Madsen says.

"Quick drying and the fact what we only have to apply one coating were decisive arguments for us," Peter Sylow Madsen continues. "Since we work in a green market segment, the environmental benefits of TEKNODUR COMBI 3560 also play an

Andresen Towers

Andresen Towers A/S was founded in 2011 and works in close cooperation with Ib Andresen Industri. The company specialises in the development and production of screw-connected towers for wind mills. Its teamwork with Ib Andresen Industri gives Andresen Towers has over 25 years of experience with wind mill towers.

Andresen Towers has already produced over 200 towers for wind mills. Most of the towers are positioned in Germany, Finland, Denmark and Sweden. Andresen Towers' solution are much easier to transport and install on site than conventional towers. They height of the crane is practically the only limiting factor for the height of the towers they can build.

www.andresen-towers.com

important role for us. On the whole, this project would have been much different without this coating solution."



