

# PAINTING WOOD newsletter

**GORI** INDUSTRY

## Content

|  |    |
|--|----|
| TEKNOSAFE 2467-00: New fire-retardant coating for interior wood panels ..... | 2  |
| Teknos coating for the world's tallest wooden building .....                 | 3  |
| Interior door coating: Maximum quality with TEKNOCOAT AQUA 2580 .....        | 5  |
| TEKNOCOAT AQUA PRIMER 1867-50: New knot sealer for the interior .....        | 5  |
| Cost-effective clear coating: TEKNOCLEAR AQUA 1331 .....                     | 6  |
| Paula Salastie has been CEO of Teknos since April.....                       | 7  |
| User report: Treehouse beds with Teknos paint.....                           | 8  |
| From Eupen to Oostende: Teknos in Belgium .....                              | 10 |
| Renaming of GORI products: Concentration on the Teknos brand .....           | 11 |
| Teknos expands its business in Asia further .....                            | 11 |
| Coating recommendations: Natural wood surfaces on the exterior .....         | 12 |
| Coating for wooden windows: Meranti with or without wood protection?.....    | 13 |

## 3/2015

Published by: Teknos Group IW

The Editor: Karin Skov

[www.teknos.com](http://www.teknos.com)


TEKNOSAFE 2467-00

## New fire-retardant coating for interior wood panels

Fire-retardant coatings are essential for compliance with fire safety regulations in wood construction. Teknos is now offering a solution for interior wood panels: the new Teknos FR PANEL system. Applications include interior wall and ceiling panels in the interior or in areas which are not exposed to weathering.

The system is based on the fire-retardant, clear coating TEKNOSAFE 2467-00. This coating foams up when subjected to heat, creating an insulating layer made of microporous carbon foam, which effectively insulates

the treated wood against heat. Depending on the specific requirements, TEKNOSAFE 2467-00 is used either alone or as a Teknos FR PANEL system with the clear coating TEKNOCLEAR AQUA 1331.

The coating is classified for factory manufacturing and meets requirements of Euroclass B S1, d0, as long as the quality management requirements are fulfilled. Detailed information on fire protection class, substrates and application is available on request. The new fire-retardant coating is expected to be available by November of this year.

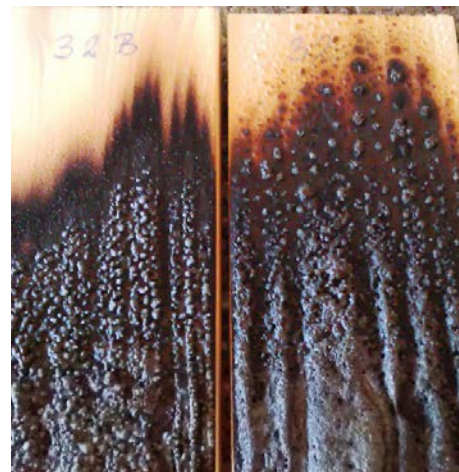




Photo: © BOB BBL

“Treet” construction project in Bergen (Norway)

## Teknos coating for the world’s tallest wooden building



Fourteen storeys tall with a breath-taking view of the harbour city of Bergen and the surrounding fjord landscape – the “Treet”, which will be completed in November 2015, is an impressive structure. In fact, the 51 metre-high “tree” is the tallest wooden apartment building in the world. It is being built by BOB BBL, which is one of Norway’s largest corporate housing association with its inventory of 22,500 domiciles. Teknos also has a hand in this groundbreaking project with its fire-retardant coatings for both interiors and exteriors.

### Efficient modular construction

The Treet is designed with a supporting wooden frame structure made of gluelams and pre-fabricated, stackable building mod-

ules. The modules are prefabricated, complete with insulation, flooring and electrical wiring, and stacked on top of each other at intervals of four storeys. Every fifth storey is reinforced with glulam girders to make a platform for the next four storeys of apartments. On top of the platform concrete elements are used to give extra weight, to improve its structural integrity. Glass facades to the north and south, as well as weatherproof Corten steel to the east and west, reliably protect the wooden structure from moisture.

The building is located on the 4,600 square metre premises at Puddefjord and consists of 14 storeys with 62 apartments between 43 and 66 square metres each. At the ninth

floor there is a fitness centre with panorama windows. A rooftop terrace, with a view over the Norwegian harbour metropolis, further increase the property's value.

The use of prefabricated modules is a major part of the concept. "The high level of pre-fabrication reduces construction times and is simultaneously more cost-effective and environmentally friendly," explains BOB project manager, Ole Kleppe. "Modern urban construction means intelligent use of space with sustainable materials, and our project shows that this can definitely be achieved with wooden structures."

Predominately prefabricated laminated timber elements are used for stairways, stairs, elevator shafts, landings and balcony panels. These were delivered and precisely installed by Moelven Limtre, a market-leading Norwegian timber specialist. The majority of the elements were produced in Germany by Merk Timber, a subsidiary of Züblin.

#### **Fire-resistant with TEKNOSAFE**

Fire safety is a crucial factor in timber buildings. And that holds especially true for the

tallest wooden building in the world. Moelven Limtre has long relied on Teknos products and has once again opted for an innovative solution from Teknos for the Treet's fire-retardant coatings.

The gluelam construction elements for the road and fjord sides were coated with the fire-retardant coating TEKNOSAFE 2407 directly at the Moelven factory. TEKNOSAFE 2407 foams up when subjected to heat, creating an insulating layer made of microporous carbon foam, which effectively insulates the treated wood against heat. In contrast to borate-based fire protection impregnations, TEKNOSAFE 2407 does not absorb moisture, which makes it less vulnerable to losing its effect from weathering. The elevator shafts and other concealed elements are treated with the fire-retardant coating TEKNOSAFE 2407.

The visible surfaces of the laminated timber elements on the interior are treated with the new TEKNOSAFE 2467-00 and TEKNOCLEAR AQUA 1331 clear coating. TEKNOSAFE 2467-00 also works as a foaming, insulating layer in the event of fire.

The highly transparent clear coating provides protection from dirt, especially in the heavily frequented stairways.

The interior surfaces were treated on site. Teknos application technicians trained the craftsmen who performed the work at the construction site and equipped them with special instruments to measure the wet film thickness. This is because the certified fire-retardant effect of TEKNOSAFE 2467-00 requires a wet film thickness of 200 µm, while the proper application of the white-pigmented coating ensures an even surface with an attractive wood appearance.

#### **A template for urban living**

"Treet is a flagship project in which we make use of innovative, intelligent solutions," says BOB project manager, Ole Kleppe. "It combines Norwegian timber construction tradition with modern Scandinavian design. As a residential building, the Treet offers the benefits of an energy-efficient, passive house with the healthy indoor climate of a wooden structure."

[www.treetsameie.no](http://www.treetsameie.no)



*Building owner: BOB Eiendomsutvikling AS ([www.bob.no](http://www.bob.no))  
Architect: Artec Prosjekt Team AS ([www.artec.no](http://www.artec.no))  
Execution planning: Sweco AS ([www.sweco.no](http://www.sweco.no))  
Laminated timber constructions and CLT: Moelven Limtre AS ([www.moelven.no](http://www.moelven.no))  
Construction modules: Kodumajatehase AS ([www.kodumaja.ee](http://www.kodumaja.ee))*

Interior door coating

## Maximum quality with TEKNOCOAT AQUA 2580

TEKNOCOAT AQUA 2580 is a waterborne topcoat which is ideally suited to industrial processes, thanks to its short drying times

and excellent blocking properties. It yields very hard, robust surfaces which meet the strictest requirements. TEKNOCOAT AQUA 2580 is used in a system with waterborne primers, TEKNOCOAT AQUA PRIMER 1866 or TEKNOCOAT AQUA 1875 and is tinted at the factory.

high surface quality and outstanding ability to smooth out unevenness, as well as the less visible fibres of the processed MDF/HDF substrate. Its mechanical and chemical resistance also do an outstanding job of meeting the demanding requirements in this field.



Manufacturers already making successful use of this coating include Porta KMI Poland, one of the leading door manufacturers in Central and Eastern Europe. The decision-makers were persuaded by its

“Industrial coatings for interior doors make up an important segment for us,” says Carsten Lauth, Strategic Business Director Interior Wood at Teknos. “We can offer our customers a tiered range of products. From economical volume production or maximum surface quality, we have competitive solutions for a wide range of requirements.”

### TEKNOCOAT AQUA PRIMER 1867-50: New knot sealer for the interior

With resinous softwoods, the escaping resin can cause discolouration at knots. The pigments in the resin can cause yellowing on the paint surface, especially with white opaque coatings. Preventing these discolourations requires a special primer.

Teknos developed the latest knot sealer TEKNOCOAT AQUA PRIMER 1867-50 for this very purpose. The acidic white primer

is specially designed for knotty pine wood on interiors. TEKNOCOAT AQUA PRIMER 1867-50 binds the colour substances in the resin and ensures that they remain inside the wood. This prevents knots in pine from causing discolourations in the topcoat treatment with white or light opaque paint.

TEKNOCOAT AQUA PRIMER 1867-50 is expected to be available in November 2015.





## TEKNOCLEAR AQUA 1331

# Cost-effective clear coating

Extremely high transparency, very good adhesion and an outstanding cost-to-benefit ratio are optimum conditions for high-volume coating for general interior use. And that's just what the new waterborne clear coat TEKNOCLEAR AQUA 1331 was designed for.

TEKNOCLEAR AQUA 1331 is still highly transparent if applied in two or even three coats. A typical structure consists of two 150 g/m<sup>2</sup>, on untreated or stained wood. The product is also ideally suited to woods such as oak and meranti. TEKNOCLEAR AQUA 1331 is easy to work with and can be applied with all spraying methods.

### Initial positive response

TEKNOCLEAR AQUA 1331 was already released on the Polish market at the beginning of the year. Since then, several manufacturers have been making successful use of the coating, including CAL Suwałki, a leading Polish manufacturer of exclusive interior doors. Initial practical experiences in Poland confirm the benefits the product has to offer: easy to work with, good surface quality and, above all, a highly attractive cost-to-benefit ratio. This makes TEKNO-

CLEAR AQUA 1331 an excellent choice for economical, high-volume production.

"Highly transparent clear coatings are in great demand," explains Carsten Lauth, Strategic Business Director Interior Wood at Teknos. "This makes TEKNOCLEAR AQUA

1331 an important addition to our portfolio. We want to offer the market solutions which are ideally tailored to our customers' requirements. Our successful launch in Poland shows that we hit the mark with our new TEKNOCLEAR AQUA 1331."



Founder's granddaughter assumes operative management

## Paula Salastie has been CEO of Teknos since April



The granddaughter of Teknos founder, Osmo Kiikka, became head of the Teknos management board in April of this year. Paula Salastie (36) is assuming this position as the successor to Pekka Rantamäki, who will continue to support Teknos in an advisory capacity until he enters retirement.

Teknos has been owned by the Kiikka family since its establishment in 1948 and is one of Finland's largest family-owned companies today. Together with her brother, Petri, and her father, Martti Kiikka, Paula Salastie has long been involved in the management. She has held various positions in Teknos' daily business operations since 1997. She has led the Architectural Coatings division, headed the board of directors and played a major role in various company acquisitions and other strategic projects. Paula Salastie's election to the position of CEO in April marks the completion of her long-planned transition to the operative head of Teknos.

### Onward with innovation

Paula Salastie brings with her: managerial experience, entrepreneurial spirit and customer orientation for her new position. "We have our customers, partners and

staff to thank for the good position we're in today," says the new CEO. "Our customers' demanding requirements have spurred on our innovative spirit and enabled us to make many ideas a reality."

For Paula Salastie, innovative solutions will also be playing a central role in the company's future development. "I've learned from my father to be curious and open to

new ideas at all times," says Paula Salastie. "This openness and the creativity of Teknos employees have enabled us to develop many innovative solutions over the past few years, including antimicrobial paints, fire-retardant coatings and scratch-resistant lacquers. And this is how Teknos will continue to develop in the future: with innovative, practical solutions which strengthen our customers' market positions."



Second and third generation: Paula Salastie with her father Martti Kiikka



## User report

# Treehouse beds with Teknos paint



The name says it all: LIFETIME Kidsrooms are furniture for children's rooms which "grow up" along with the child, from baby to teenager. An intelligent system design provides a solution to fit every size and match every age group. The children shouldn't be penned in. Instead, they should play in an imaginative environment, discover new worlds and have fun.

This innovative concept is the work of Danish furniture maker, M. Schack Engel A/S, in Hoyer (Jutland). The company has been developing and producing high-grade chil-

dren's furniture since 1972, ranging from baby beds, cabinets, shelves and desks to complete children's bedroom sets. Among them are many unmistakable products such as the imaginative treehouse beds or the 4-in-1 bed, which can be adjusted for different age groups, thanks to its modular configuration.

LIFETIME Kidsroom products are currently for sale in about 30 countries in Europe, Asia, the Middle East and the USA. In addition to classic sales through selected specialist dealers, M. Schack Engel offers

the product range as a shop-in-shop solution or franchise concept, depending on the region.

### High quality and sustainability

High quality standards are an essential part of the LIFETIME philosophy. The solid wood furniture is produced in accordance with the strictest quality standards at Hoyer's facility in Jutland. "We rely on high-grade materials, solid design and Danish quality workmanship," says Keld Nielsen, who runs the company as managing partner, together with John Engel. "We want our furniture to



© LIFETIME Kidsrooms / M. Schack Engel A/S



be safe, sustainable and last longer than an entire childhood.” This also entails fulfilling important safeguarding requirements such as the European standard EN 747 for bunk beds and loft beds.

M. Schack Engel also meets high standards in terms of sustainability and environmental friendliness. “We predominately work with domestic pine and birch from managed forestry practices,” explains Keld Nielsen. “We use as much wood as possible and try to avoid other materials such as metal and plastics.”

### Two production lines with Teknos

M. Schack Engel uses environmentally friendly waterborne paints and stains for its coatings. The company has relied on Teknos coatings since its very inception, going all the way back to the company, Hygæa, which was later acquired by Teknos. Teknos remains an important coating supplier for LIFETIME furniture.

The company currently runs two production lines with Teknos systems. The furniture maker uses a system with AQUAFILLER 1100 and a topcoat of TEKNOCOAT AQUA 1878 as its white opaque coating for bed frames. Flat elements are coated with a UV curing system consisting of UVILUX SEALER 1456, UVILUX 1754 and 1760 primers and a topcoat of UVILUX 1770.

“Teknos coatings give us a high surface



quality which fulfils our quality demands and meets the relevant safety and environmental standards,” says Keld Nielsen. “Technical support and service are also important to us, and our experience with Teknos has been very good in this department as well.”

And the long history of this cooperative effort continues – so that children all over the world will be able to play, have fun and sleep in LIFETIME furniture coated by Teknos.

[www.lifetime.dk](http://www.lifetime.dk)



Production in Denmark: M. Schack Engel in Hoyer (Jutland)



© LIFETIME Kidsrooms / M. Schack Engel A/S

## Teknos in Belgium

# From Eupen to Oostende

Teknos coating systems have been available on the Belgian market for ten years now. Our sales partner in Belgium is Hendrichs AG. Based in the Wallonian town of Eupen, this specialist wholesaler supplies woodworking carpenters and industrial manufacturers in Belgium, Luxembourg and the neighbouring regions of Germany. Hendrichs is not only a paint supplier, it also provides carpenters and industrial manufacturers with comprehensive professional support.

The Teknos sales partner also commenced operations in Flanders in the autumn of 2013. "Flanders is a highly individual market with special requirements – and not only when it comes to language," says Didier Kirch, Sales Manager of Hendrichs AG.

Hendrichs supplies its growing number of Flemish customers from its new logistics site in Zandhoven. Customer support is provided by an external sales force as well as an in-house service team with long-term experience in the industry.

### More than just coatings

Service gets high priority at Hendrichs. Both sites are equipped with Teknos mixing machines for RAL and NCS colour shades. Individual shades are checked in a special inspection procedure in order to ensure that they remain uniform when re-ordered. Hendrichs is also highly active in the field of training. The company runs a cutting-edge training centre with spray booths and overhead conveyors. "We place great emphasis



*Hendrichs Sales Manager Didier Kirch (l.) and Managing Directors Andrea and Christoph Klüttgens*

on providing top-notch service," says Managing Director, Christoph Klüttgens. "We don't just consider ourselves a paint supplier. We make it a point to provide our customers with qualified consultation throughout the entire application process."

Hendrichs has long relied upon Teknos for industrial wood coatings. Main products include translucent and opaque systems from the Teknos range, as well as specialist primers. "We have been selling Teknos coatings for ten years and have many long-term customers who have had very good experience with them," says Didier Kirch. "Teknos has a well-developed product range which does a great job of covering the requirements of modern window and door production."

[www.hendrichs.be](http://www.hendrichs.be)



**Hendrichs**  
PAINTS + COATINGS

*Hendrichs AG headquarters in Eupen*

*© Hendrichs AG*

## Renaming of GORI products

# Concentration on the Teknos brand

More than six years after acquiring the GORI Industry division, and to streamline the primer and filler/ intermediate product assortment, Teknos will now be phasing out the brand name GORI for primers and fillers/ intermediates, and will be changing the product names as of beginning of 2016.

For instance, GORI primers will be renamed Teknos AQUAPRIMER, while GORI intermediates will receive AQUAFILLER designations. Important for customers to acknowledge is: Only the product names and ordering information are being changed. The products

themselves will still be available in the same quality and formula.

Customers will receive a detailed list of the products and versions affected in time for the switch, complete with all the new ordering information. Your local Teknos contact person will be glad to assist you with any questions you may have.

“Since the acquisition of the GORI Industry division, the teams in research and development, sales and application technology have been merged, and Teknos is now known in



## GORI INDUSTRY

markets where we were not highly active under this brand until 2009,” says Product and Marketing Manager, Søren Juhl Hansen. “The general pressure keeping a streamlined product assortment alive and vivid is why the time has come to contract on a single brand. It is important to keep in mind that we are not changing the tried-and-true GORI formulas, but only renaming the products. Customers will still have a complete range of high performance products in the high quality they are used to.”

## New Teknos company in India

# Teknos expands its business in Asia further

Teknos is stepping up its presence on the Asian market with a sales organisation of its own in India. India is one of the strongest growth markets in Asia and, with a population of 1.3 billion and rapidly rising demand, is an important sales market for an internationally active company like Teknos.

Teknos has already been represented by a business partner in India for years. The new company is intended to expand our business in the subcontinent further, starting with the field of industrial coatings for metal. Teknos’ new local subsidiary is also bolstering its support for several large-scale European customers with production facilities in India. Founded at the beginning of 2015, Teknos Coatings and Paints is

headquartered in the West Indian business metropolis of Mumbai.

In charge of the business in India is Anand Joshi, who joined Teknos as Technical Sales Manager in 2014. Anand Joshi is a plastics technology engineer, and he previously worked for the largest industrial coating manufacturer in India. With this new sales company in the world’s second most highly populated country, he now coordinates Teknos’ activities in an important market for the future.



GORI 675-01 with effective UV protection on spruce

## Coating recommendations

# Natural wood surfaces on the exterior

Colourless coatings are the key to naturally beautiful, long-lasting wood surfaces in the outdoors. The requirements are many, ranging from high UV protection to grain accentuation. Teknos offers a versatile product range for a diverse array of requirements in this segment.

### Light softwoods, high UV protection

AQUATOP 2600-66 (resp. GORI 666-24) offers maximum UV protection. Its high UV absorber content makes the clear coating ideally suited to light woods, above all, pine and spruce. AQUATOP 2600-66 is available for gloss grade 30.

### Dark woods, high UV protection

The colourless coatings, AQUATOP 2600-67/-69 (resp. GORI 660-67/-69), also offer high UV protection. Its low level of haziness makes the product very well suited to dark species of wood, both domestic and tropical alike. The coating has an accentuating

effect, especially with larch, Douglas fir and exotic species of wood, and perfectly highlights the surface of the wooden substrate. The product is available in gloss grades 70 (product version -67) and 30 (-69).

### Light softwoods, matte interior surfaces

The softwood 'oils', AQUATOP 2760-30 and AQUATOP 2760-35 (resp. GORI 675-00 and GORI 475-00), result in especially natural surfaces, imbuing them with an oil appearance. With a minimal gloss grade of 5, they have a dull-matt appearance, leaving the wood looking absolutely natural. Both products are designed for indoor surfaces and do not contain UV absorbers. They are predominately used for attractive interior surfaces on wood and aluminium windows. AQUATOP 2760-30 is very well suited to light softwoods, such as spruce or pine. AQUATOP 2760-35 has a more highly accentuating effect and is perfect to bring out the grain in larch.

### Light softwoods, matte exterior surfaces

The softwood 'oils' are also available for outdoor applications as product versions, AQUATOP 2760-31 and AQUATOP 2760-36 (resp. GORI 675-01 und GORI 475-01). These are lightly pigmented and imbued with effective UV protection. They achieve highly attractive, natural surfaces with a gloss grade of 5 and an accentuating effect. The products are suitable for light domestic woods, while the more highly accentuating AQUATOP 2760-36 is also recommended for larch.

*Are you looking for the right coating for your product? We'll find the solution that fits! Teknos places a comprehensive product range and an internationally experienced team of application technology experts at your disposal. Just ask your local Teknos contact person!*



AQUATOP 2600-67 and 69 on rosewood, ebony, teak and zebrawood (left), GORI 666 on pine larch (right)

## Coating for wooden windows

# Meranti with or without wood protection?

For decades, meranti has been one of the most important imported woods in Europe. It is used for window construction in many countries, thanks to its favourable properties. However, varying quality levels on the market lead to frequent questions regarding coating. The most important being: does meranti need wood protection?

Out of the roughly 150 species in the genus Shorea, red and yellow meranti are the main ones used in window construction. There are significant fluctuations in gross density amongst the individual species which affect durability and thus the coating needed. Investigations by the Thünen Institute of Wood Research (Hamburg) indicate that the aforementioned meranti woods reach durability classes of 2 to 4, depending on species and gross density.

Our Teknos application technicians will be glad to help you with any questions you may have on ideal coatings for meranti. Just ask your local Teknos contact person!

### Wood protection at durability class 3 and up

Based on its long-term experience, Teknos expressly recommends impregnation for meranti of durability class 2 or poorer. Here's what this means for the species of meranti typically used in window construction:

| Wood species             | Gross density (g/cm <sup>3</sup> ) | Durability (acc. to EN 350-2) | Coating                 |
|--------------------------|------------------------------------|-------------------------------|-------------------------|
| Light Red Meranti (SHLR) | ≥ 0,45                             | Class 3-4                     | with wood protection    |
| Dark Red Meranti (SHDR)  | ≥ 0,55                             | Class 2-3                     | without wood protection |
| Gelbes Meranti (SHYM)    | 0,50-0,70                          | Class 3-4                     | with wood protection    |

(Table according to Thünen Institute of Wood Research, coating recommendation from Teknos)

Teknos recommends the following system as an optimum coating for meranti woods in window construction:

| Coat                                   | Opaque                            | Translucent                       |
|--|-----------------------------------|-----------------------------------|
| Impregnation (if necessary, see above) | TEKNOL AQUA 1410 (resp. GORI 356) | TEKNOL AQUA 1410 (resp. GORI 356) |
| Priming                                | AQUAPRIMER 2901 (resp. GORI 615)  | AQUAPRIMER 2900 (resp. GORI 615)  |
| Intermediate treatment                 | AQUAFILLER 6500 (resp. GORI 650)  | AQUAFILLER 6500 (resp. GORI 650)  |
| Topcoat treatment                      | AQUATOP 2600 (resp. GORI 660)     | AQUATOP 2600 (resp. GORI 660)     |

