

PAINTING WOOD

newsletter

GORI INDUSTRY

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Dear Business Partners,

Innovation is based on experience. Behind Teknos and GORI Industry coating systems are decades of experience with water-based paints and varnishes. This also includes intensive tests that we continually conduct during the development of a new product. For example, in our Technical Competence Centre in Vamdrup, the largest of its kind in Europe, and also in cooperation with many renowned scientific institutes and research facilities.

You will find some examples of such activities in this issue: Our weathering tests together with the Danish Technological Institute (DTI) in Malaysia, a long-term testing of terrace decking by Holz-forschung Austria (the Austrian Wood Research Institute) and our new wood encyclopedia created in close cooperation with the von-Thünen-Institut (Hamburg). Know-how and experience that serves you and the quality of your products!


Jørgen Ulrik Hansen

Director Research & Development, Teknos Industrial Wood



Teknos gains valuable experience from long-term exposure in the tropical climate of Borneo where wood decomposes much faster than in North European climate.

Teknos wood preservatives stand demanding tests in tropical climate

The coating system has a decisive impact on the durability of wood in outdoor use. This makes it more important to gather long-term experiences with coating systems in field tests. Teknos has been conducting such tests for many years, both at their own weathering stands and in cooperation with institutes and research facilities in Europe and Asia.

Tests conducted in a tropical climate are particularly valuable for the assessment of wood preservatives. A consistently high temperature and air humidity encourage decay and wood-destroying fungi, therefore placing particularly stringent demands on wood preservatives. This is why Teknos has carried out weathering tests in Malaysia since 2000 in cooperation with the Danish Technological Institute (DTI).

10 years in Malaysia = 50 years in Denmark

The weathering stand is located in the Malaysian state of Sarawak on Borneo. The annual average temperature there is 28° C (compared with 7–8° C in Denmark), the annual rainfall is 2500 mm (compared with 600–700 mm in Denmark). The tests are conducted in parallel in Malaysia and on the premises of the DTI in Tåstrup in Copenhagen,



Teknos tests in Malaysia are based on the standard L-joint method as defined in EN 330.

so the climate impacts can be directly compared. It has shown that untreated wood in Malaysia decomposes about five times faster than in Denmark. Reliable conclusions are thus possible in tropical climates after only two years, while tests in the North European climate require six to eight years.

The tests in Malaysia are mainly based on the L-joint method defined in EN 330. Test samples are corner elements made of sapwood and heartwood of various wood species with a wide range of coating systems. Two and three-layer systems with the water-based wood preservative TEKNOL AQUA 1410, the combi primer AQUA PRIMER 2907-02 and the classic vacuum impregnation are tested. The samples are regularly examined and rated on a scale of 0 (no damage) to 4 (complete decomposition).

Reliability through experience

After more than ten years' weathering tests in a tropical climate Teknos today has access to valuable experience. It is supplemented by results from comparable long-term tests with GORI Industry systems, which the GORI Industry Team conducted before its takeover by Teknos. Effective protection against blue stain, decay and wood-destroying fungi can be proved for different coating systems with TEKNOL AQUA 1410, GORI 356 und AQUA PRIMER 2907-02. The test results also facilitate approval under the Biocide Product Directive which requires detailed documentation on each product. There are also valuable findings for the resistance of sapwood vs. heartwood, for example, with regard to the technical requirements for manufacturing wooden windows according to "2 ECO-norm"



from The Association of Danish Window Manufacturers. In any case Teknos customers can rely on proven effective BDP-compliant products and comprehensive expert knowledge.

Biocide Product Directive (BPD): On the safe side with Teknos

As stated in the previous Painting Wood Newsletter, the approval of wood preservatives under the European Biocide Product Directive (BPD) is on the home stretch. Products containing biocide may only be marketed if they contain notified substances and if they have been submitted for approval or have already been approved.

Teknos customers are on the safe side. From a very early stage Teknos has ensured that Teknos and GORI Industry products, covered by the directive, meet these requirements. The first approval procedures will soon be completed; until then an official registration number shall suffice. Manufacturers should verify with all their suppliers that the products containing biocides do have such a number. For Teknos and GORI Industry products you will find the registration number for the respective countries on the Teknos website. ▶

BPD registration numbers exist for:

TEKNOL AQUA 1410-01

AQUA PRIMER 2907-02

AQUA PRIMER 2907-42

GORI 356

GORI 605

Note: The notification of insecticide substances has not been completed yet. Therefore the approval procedures for products with insecticides are delayed (no registrations expected before 2013). Customers, however, can be sure that Teknos will offer BPD-compliant impregnations with both fungicides and insecticides (also against termites).



New effective Teknos coating system for garden furniture, terraces and balconies

The GORI Industry program will be expanded with a high quality coating system for garden furniture and balconies. The new updated primer GORI 649 contains a highly effective film protection specifically against blue stain. Blue stain is a typical damage on horizontal surfaces such as balcony rails or seats. It is caused by hailstorms or

other mechanical damage. A special developed topcoat GORI 661 for horizontal surfaces requiring extremely flexible surfaces is also in the pipeline. Tests are currently underway for the new system. The product launch is expected for autumn 2011.

Long-term test with half a million visitors



The garden show 'Garten Tulln' near Vienna with more than 200,000 visitors per year is the location of a comprehensive, long-term wooden decking test run by Holzforschung Austria.

Teknos is currently involved with an exceptional long-term research project with Holzforschung Austria on wooden decking. Various wood types, surface structures and coating systems are being tested on an area with 68 test fields on the premises of the garden show 'Garten Tulln' in Vienna. Teknos is working closely with Holzforschung Austria and has coated several wooden terrace fields. The durability as well as visual and haptic changes are being examined among other things, and visitor interviews are being conducted. The project is being run for three years until 2012, during this time the show expects more than half a million visitors.

Premium windows with Teknos coating

Fenster Mersch S.A. is a well-known window manufacturer in Luxembourg. The family-run company, founded in 1949, manufactures high-quality wooden windows and doors, generally as individual solutions for new and existing buildings. Mersch also achieves success with ornamental windows for historic buildings. The company primarily supplies customers in the Grand Duchy of Luxembourg. Most of them are private clients, but references also include properties such as the historic castle Sanem or the Grand Ducal Palace.

As regards the woods used, oak constitutes a large share of production, which is typical for Luxembourg. Even wood/aluminium windows are often manufactured to customer specification in oak or larch. The demand for topcoats is prevalent in surface finish. Beside classic white, anthracite is a current trend. Since 2009 Fenster Mersch has used GORI Industry coatings from Teknos. Standard is a four-layer coating with GORI 356, GORI 615, GORI 650 and GORI 660. Wood/aluminium windows are mostly coated with a three-layer system using GORI 675 Conifer Oil as a colourless finish.

*“Customers choosing wooden windows place high demands on finish quality and durability, so we attach great importance to a first-class coating”, states **Ars Mersch**, who manages the family-run company together with his brother **Pit** in its second generation. “With the GORI Industry System we achieve very high-quality, smooth surfaces with a natural look, which leaves a positive impression with our customers and is a very good selling point.”*

Mersch obtains coating products from Teknos sales partner Hendrichs AG (Eupen, Belgium). The specialist wholesaler supplies wood working handicraft and industrial companies in Belgium and neighbouring countries. For over five years Hendrichs has been selling GORI Industry coating systems. *“After extensive tests we listed the complete program and later changed to the new GORI Industry product generation”, says **Didier Kirch**, sales director at Hendrichs. “We are very satisfied with the products and the cooperation. Working closely with suppliers is important for us, because we also support our customers with a competent application advice on our products.”*

www.fenstermersch.lu
www.hendrichs.be



Maison Dufaing in Walferdange (Luxembourg) with specially manufactured wooden windows by Mersch and coating by Teknos (photo: Fenster Mersch)



Flow-coating in production facilities in Brachtenbach (Luxembourg) (photo: Fenster Mersch)



Second and third generation of the family-run company: Ars, Marc and Pit Mersch (from left to right) (photo: Fenster Mersch)

Smooth production with Teknos paints



Sörnsen Holzleisten GmbH & Co. KG in Süderbrarup near Flensburg is one of the largest moulding manufacturers in Europe.

Over two million metres of mouldings are produced every year by Sörnsen Holzleisten GmbH & Co. KG in Süderbrarup near Flensburg. With highly efficient industrial manufacturing and international sales the family-run company, founded in 1945, is one of the largest moulding manufacturers in Europe. The enormous product range includes skirting boards, wall and ceiling mouldings, parquet profiles and

flooring accessories in every imaginable shape, wood type and pattern. The company has around 2,000 different products in stock.

Sörnsen serves building and home improvement markets with a full range of products from labelling to shelf management, but also the timber trade and parquet manufacturers and distributors. Sörnsen also supplies fixed lengths to customer specification. Recently the company also started to sell mouldings for the furniture industry. As another addition to the range products for outdoor use are in the pipeline, especially for window and door manufacturing.

Proven in practice

Sörnsen manufactures solid wood mouldings, painted or foil-wrapped MDF mouldings and wood veneer mouldings. The company has used Teknos coating products since 2008. *“As the trend moved towards directly coated MDF mouldings, we looked on the market for systems with particularly good adhesion”*, explains **Robert Sörnsen**, manager of the company in its third generation. *“We have tested Teknos products and as a result have quickly found the right solution.”*

Smooth processing and fast drying are crucial for the production process. In only seven minutes a moulding at Sörnsen goes through the production steps sanding, coating and drying. Most mouldings are coated with AQUAFILLER 1100 and TEKNOCOAT AQUA 1878. MDF mouldings are coated in white, solid wood mostly transparent. Sörnsen coats highly-stressed floor profiles with the UV-hardened paint TEKNOLUX AQUA 1429.

Successful cooperation

“We are absolutely satisfied with Teknos coatings. Processing is straightforward and the results are convincing”, says Robert Sörnsen. *“And the cooperation with Teknos is very good, both with the German branch in Fulda and with Vamdrup, which is only an hour’s drive away from us.”*



Sörnsen offers a wide variety of skirting boards, wall and ceiling mouldings, parquet profiles and flooring accessories.