

# Industrial system treatment of cladding



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Teknos focuses greatly on developing quick and effective products that are to be included in an industrial surface treatment system. Due to this, Teknos has been the cladding industry's preferred paint supplier for the past 20 years.

With the broadest product range on the market in terms of protection against rot, primers and intermediate coats/top coats, you are guaranteed to find an effective surface treatment system that suits your company; moreover, you are sure to find a surface quality that ensures optimal longevity. This also applies if you are looking for a fireproof surface treatment.

# The key terms for our products and system treatments are:

- Good adhesion
- Better stability
- Controlled use of paint
- No stripes remaining after shrinkage
- Uniform application
- Long durability
- Effective and economic
- Unlimited colour scheme

The combination of the broad product range and focus, together with Teknos' industrial tone system, provides solutions that suit all individual wishes and requirements. The fact that we can offer opaque and transparent colours within the entire colour scale underscores that we have a significant colour formulation competency.

#### Industry products

Cladding that is treated with one or more of our industry products in a 2 or 3 step treatment is provided with a very good foundation for further treatment, in order to achieve longevity.

Our products are inter-compatible, and can be used in the system combinations that you decide upon. Together with a Teknos consultant, you can adjust those surface treatment systems that are optimal for your equipment and operation.

All of our products can be applied using the various application equipment on the current market. Teknos collaborates with a number of equipment suppliers, and can thus impact the development, and not least ensure that Teknos' products can be used with future application equipment.

The same applies to drying systems, e.g. IR and hot air dryers. Our products and systems are tested, and are continuously tested in relation to which drying systems are optimal in ensuring a quick, smooth and effective production process.

#### Finishing treatment / Maintenance painting

Our products can be painted over by using quality paints and varnishes found on the market. Water-based alkyd/acrylics or pure acrylic products are recommended for the intermediate coat/top coat. Usage and durability properties will not be affected by our products. The selected manufacturer's recommendations concerning amount, moisture in wood and air, temperature and pretreatment must be adhered to.







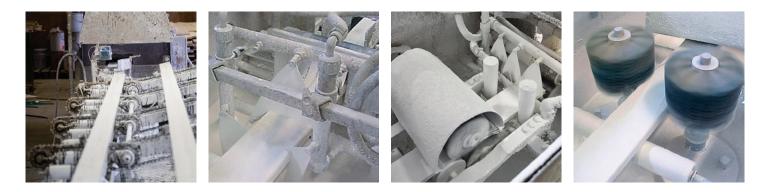
## 1. Preservative

#### **TEKNOL AQUA 1410**

- Wood impregnation that protects the wood against surface fungus, bluestain fungus and rot.
- Alkyd binder that ensures adhesion for further surface treatment, reduces crack formations, and stabilises the wood.
- Colourless, water-based, environmentally friendly and free of heavy metals
- Approved in accordance with the EU's Biocides Regulation and the Norwegian Environment Agency, approval no. NO – 2014-0040
- Documented effect of EN 113 with EN 73, EN 74 and EN 152 1 as described in EN 599 1
- Suitable for application using a brushing machine, flowcoat, dipping or spraying device.
- Must be painted over using a primer and/or intermediate coat before exposure to sunlight

#### AQUAPRIMER 2907-02

- Transparent, toneable wood impregnation and primer in the same product
- Protects the wood against surface fungus, bluestain fungus and rot
- Alkyd/acrylic binder that ensures adhesion for further surface treatment
- Approved in accordance with the EU's Biocides Regulation. The product is sent to the Norwegian Environment Agency. Approval is expected before the end of 2014.
- Documented anti-rotting effect of EN 113 with EN 73, EN 74 and EN 152 1 as described in EN 599 1
- Suitable for application using a brushing machine, flowcoat, dipping or spraying device
- Must be painted over as soon as possible, within 6 months at the latest, after exposure to sunlight
- Can be painted over using oil varnishes, deck varnishes or paints. Water-based alkyd/acrylic products of approved quality are recommended.



### 2. Opaque primer

#### **TEKNOL 2881**

- Protects the wood against surface fungus and provides the wood with weatherproof protection
- Alkyd/acrylic binder that provides the wood with good adhesion
- Delivered as a concentrate and can be diluted max. 1:1 with water
  An effective protection for the surface with a calculated Dry Film
- All ellective protection for the surface with a calculated bry Fill Thickness of approx. 30 mµ (on unplaned wood)
  Suitable for application using a brushing machine,
- vacuum and spraying deviceRecommended to be painted over as soon as possible,
- within 1 year at the latest
- Can be painted over using oil varnish, oil paint, water diluted opaque/ transparent alkyd/acrylic top coat or corresponding approved products (follow the manufacturer's recommendations for application)

#### **TEKNOL 3885**

- Protects the wood against surface fungus and provides the wood with weatherproof protection
- Alkyd/acrylic binder of the best quality that provides the wood with good adhesion
- Delivered and applied without any further dilution

### 3. Transparent primer

#### TEKNOL 1888 / TEKNOL 1889-11

- Protects the wood against surface fungus and provides the wood with weatherproof protection
- Alkyd/acrylic binder that provides good adhesion for further treatment
- Delivered and applied without any further dilution
- A very effective protection of the surface
- A very transparent film that accentuates the wood's natural appearance

# 4. Intermediate coat/ Top coat

#### NORDICA EKO 3330

- Can be toned in all opaque and transparent colours
- Acrylic based adhesive which provides long and good durability
- Has very good weather resistance properties
- Tested and approved in accordance with EN 927-3
- Can be applied using a brush machine, vacuum or a spraying device
- Must be painted over using a water diluted alkyd/acrylic or pure acrylic paint

- A rich and very effective protection for the surface with a calculated dry film thickeness of approx. 50 m $\mu$  (on unplaned wood)
- Suitable for application using a brushing machine, vacuum and spraying device
- Recommended to be painted over as soon as possible, within 2 years at the latest
- Can be painted over using oil varnish, oil paint, water diluted opaque/ transparent alkyd/acrylic top coat or corresponding approved products (follow the manufacturer's recommendations for application)

#### **TEKNOL 3881**

- High quality opaque primer
- Alkyd/acrylic binder that provides the wood with maximum adhesion. Can also be used on planed surfaces
- Fast drying and able to be painted over itself. Can be used as both primer and intermediate coat
- Ready to use upon delivery
- Recommended to be painted over as soon as possible, within 2 years at the latest
- Can be painted over using oil deck varnish, oil paint, water-based alkyd/acrylic paint or corresponding approved products
- Suitable for application using a brushing machine, vacuum and spraying device
- Recommended to be painted over as soon as possible, within 1 year at the latest
- Can be painted over using approved oil varnishes, waterbased alkyd/acrylics or acrylic varnishes (recommended). Follow the manufacturer's recommendations for application.

#### NORDICA EKO 3894

- Can be toned in all opaque and transparent colours
- Acrylic and polyurethane reinforced binder that provides very good anti-adhesive properties and a very beautiful finish.
- Has very good resistance to decomposition, and therefore provides long and good durability
- "Best in test" with the Norwegian Institute of Wood Technology in 2006 (Ref. report 62 June 2006)
- Suitable for application using a brushing machine or spraying device
- Must be painted over using a water diluted alkyd/acrylic or pure acrylic paint

# Further surface treatment after priming

The minimum treatment recommended for cladding that is delivered with a primer and intermediate coat is to seal nail holes and end grains as soon as possible. The best effect is achieved by applying a rich finishing top coat. Depending on the weather conditions at the site, the transparent colours must be surface treated within 2 years at the latest, while opaque colours must be surface treated within 3 years, on the condition that the nail holes and end grains have been sealed.

Cladding that has a 3 step treatment consisting of primer, intermediate coat and top coat applied will have an expected lifetime of 3-4 years for transparent colours, and 4-6 years for opaque colours. The durability is negatively affected by the weather and sun conditions at the site. It is assumed that the recommended quantities of the products are applied and that any nail holes, scraped or cut areas are primed and then painted over with a top coat as soon as possible after assembly.

#### Durability

Teknos' industrial surface treatment provides your cladding with the best treatment that new wood can receive, and will be the perfect foundation for later maintenance.



## Fireproofing

Teknos FR Facade is a fire-retardant paint system for woodwork. The paint system provides a unique opportunity to use wood where it was previously deemed a fire hazard. Teknos FR Facade provides architectural freedom and allows for the use of wood in agglomerations and high buildings. Fire painted wood products are assembled just like traditional wood, and can easily be adjusted to individual building construction.

#### Manufacture of fire painted wood

In an industrial process, fire-retardant paint and intermediate treatment are applied under controlled conditions.

#### What happens during a fire

During a fire, the fire paint swells and creates a protective and durable coal layer. The isolating property prevents combustible gases being cleaved from the wood. Upon enduring impact from a fire, the wood will gradually be converted to coal and will not ignite. These properties also make the fire painted wood able to protect underlying materials against fire. Approved as fire retardant cladding class  $K_2$ 10.

#### Assembly

Assembled in accordance with guidelines provided in the Construction Detail Sheets A 542.101 and 102. After assembly, Nordica Eko House Paint is applied by a painting company that is approved by Teknos.

During industrial application, the Teknos FR Facade fire retardant painting system consists of a primer: Teknosafe 2407, intermediate treatment: Nordica EKO 3330, topcoat: Nordica EKO House Paint. When applying to surfaces with existing paint, one skips the intermediate treatment.

#### **TEKNOSAFE 2407**

- Opaque fire retardant primer that is used to provide a fire resistance to wood
- A unique opportunity to use wood where it was previously deemed a fire hazard
- Can be used for both the interior and exterior
- Dries quickly and provides good adhesion for intermediary treatment

- Fire safety classification in accordance with NS-EN 13501-1, surface B-s1,d0
- Fire safety classification in accordance with NS-EN 13501-2, cladding  $\rm K_110$  and  $\rm K_210$
- Rated EXT in accordance with NT Fire 054, i.e. tested and approved for outdoor use
- This means that the paint system has achieved the highest level of fire resistance for organic material.
- Documented in relation to the Norwegian Standard NS-EN 14915 «Panel boards and cladding boards of solid wood. Properties, evaluation of compliance and labelling». Requirements in relation to «Regulations on technical requirements for construction work, Chapter 3 ».
- Applied using a spray machine in order to apply the correct amount
- For the exterior, it must be painted over using either NORDICA EKO 3330 or NORDICA EKO House Paint; and for the interior, a 100 % acrylic product must be used.
- The painted cladding can be CE labelled

#### NORDICA EKO 3330

- When TEKNOSAFE 2407 is industrially applied, this must be used as a protective intermediary coat until the top coat is applied.
- Can be toned in all opaque colours, NCS, RAL and special colours
- · Acrylic based binder which provides long and good durability
- Has very good weather resistance properties
- Tested and approved in accordance with EN 927-3
- Can be applied using a brush machine, vacuum or a spraying device

#### NORDICA EKO HOUSE PAINT

- **Must** be used as the last top coat once the cladding, that has been treated using TEKNOSAFE 2407, is assembled at the construction site.
- Glossy house paint with the market's first dual efficient acrylic binder that provides long and good durability and retains the shine and colour for years to come
- Has very good weather resistance properties
- Can be toned in all opaque colours, NCS, RAL and special colours
- Can be applied using a brush, roller or spray.

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## Contact us

Throughout more than half a century, Teknos has developed, produced and marketed wood protection products for cladding, windows, doors, etc. Our goal is to continuously develop effective products and system treatments that provide surface treated wood with an optimal longevity.

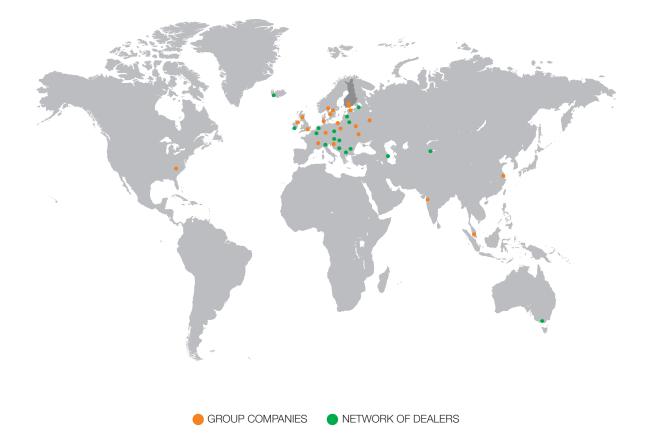
Contact Teknos for quick and assured technical advice on the use of cladding products, the creation of an industrial surface treatment system, or for fire protection treatment.



# **The Teknos Group**

Teknos is a global coatings company with operations in more than 20 countries in Europe, Asia, and the USA. It employs approximately 1,700 people and makes annual net sales of approximately EUR 400 million. Teknos is one of the leading suppliers of industrial coatings with a strong position in retail and architectural coatings. Teknos wants to make the world last longer by providing smart, technically advanced paint and coating solutions to protect and prolong. Teknos always works in close cooperation with its customers. It was established in 1948, and is one of Finland's largest family-owned businesses. For further information, visit www.teknos.com





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