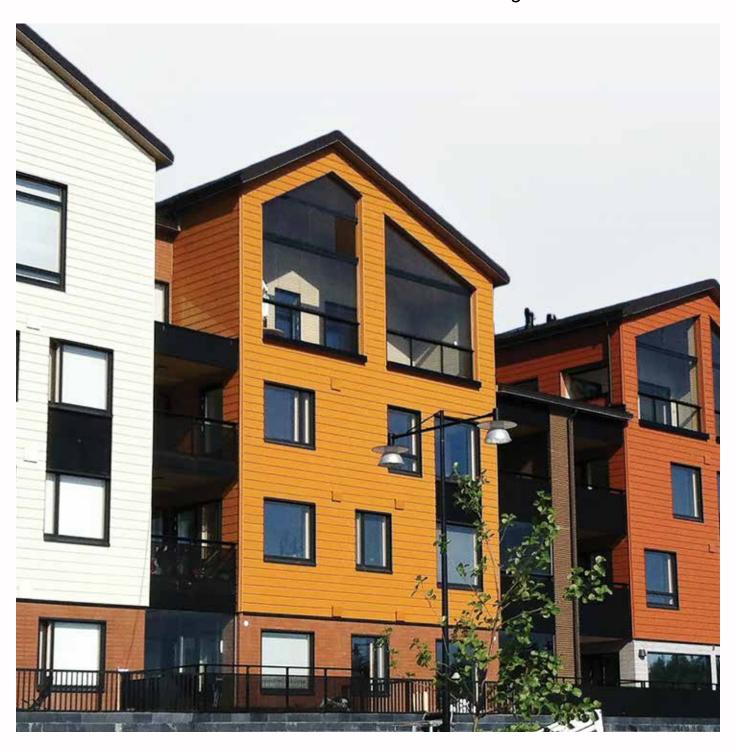
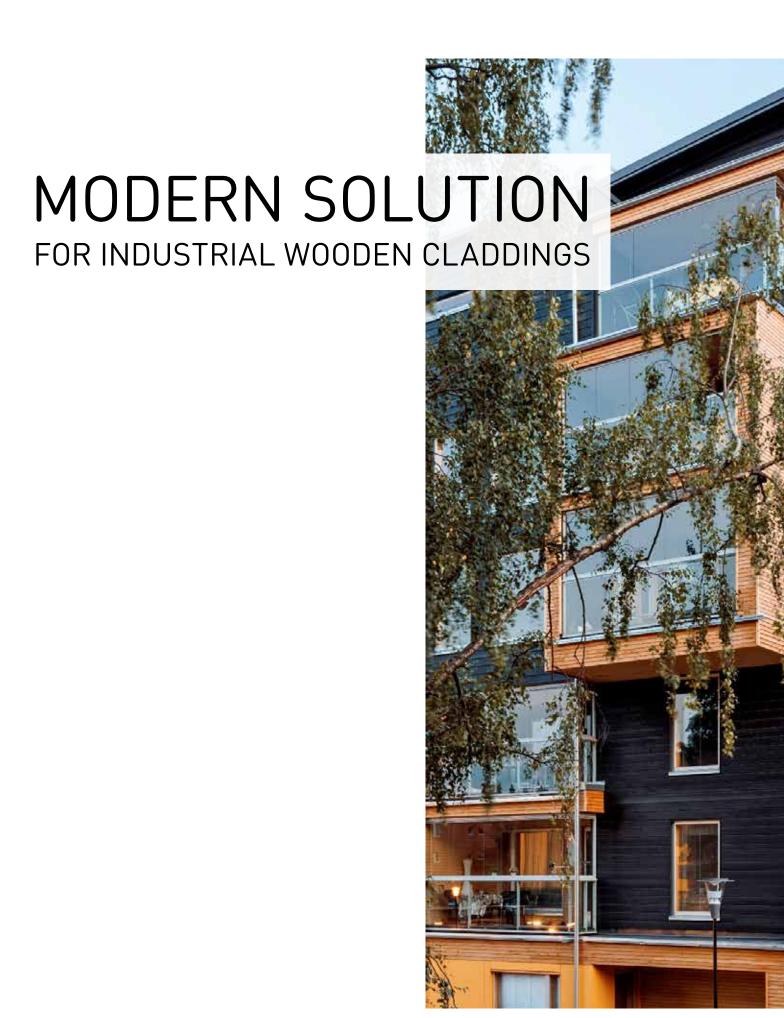


ULTRA PRO-SERIES

Modern solution for industrial wooden claddings





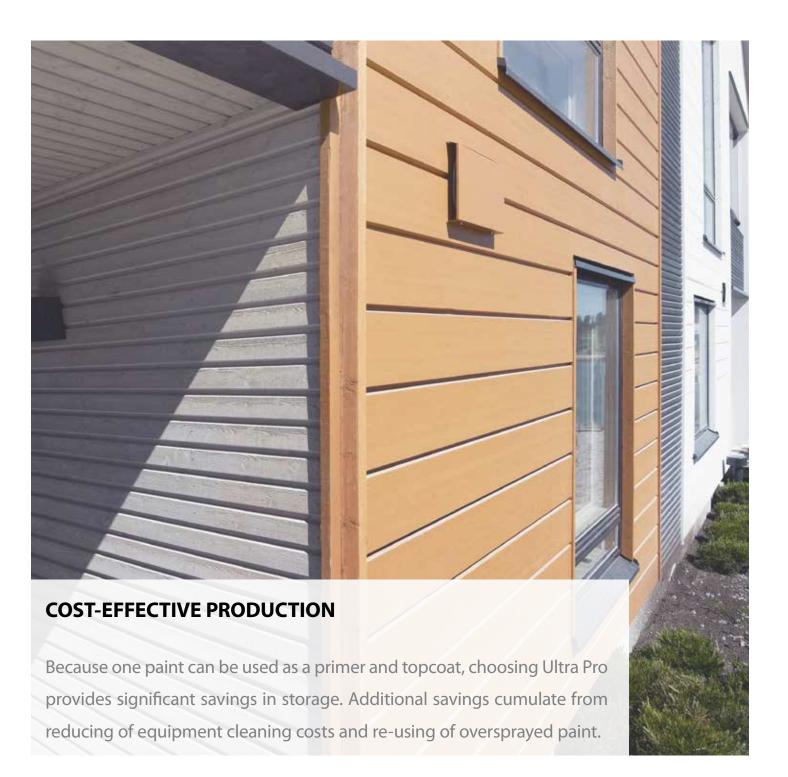


Urban wooden construction is a fast-growing trend. In addition to private housing, in public buildings and high-rise buildings wood is being used more and more. This trend is visible not only in Finland but throughout Europe, and even worldwide. Also, on-site painting is taking a more minimal role in construction processes, with factory painting growing from year to year.

Therefore, Tikkurila has a range of durable and time-proved solutions for wooden facades, for both on- and off-site painting. The most popular product range among producers of wooden claddings nowadays, is the Ultra Pro -series of polyacrylate paints, which is designed especially for fast production lines.

Tikkurila continuously invests in the development and research of innovative and modern high-tech products to make them the best on the market.

BENEFITS FOR MANUFACTURERS **ECOLOGICAL SOLUTIONS** A global tendency in favor of using water-borne paints for wooden claddings has widely spread across Europe. Requirements of VOC-reduction, as well as environmental and safety aspects should be taken into account by claddings and exterior panels producers. The water-borne technology has significant advantages compared to conventional solvent-borne. It allows for the waste removal and recycling processes to be very cost-effective so no significant investments are needed. This also makes the manufacturing process ecological and creates a safe working environment. • High quality with cost savings Water-borne technology • Ecological manufacturing Low VOC-solvent emissions.



- Only one product needed
- Cost savings due to re-use of oversprayed paint
- More efficient painting line due to less washing
- Short drying time up to 5-6 minutes
- Can be quickly stacked after drying and cooling.

PRODUCT INFORMATION

Ultra Pro products are one-component water-borne polyacrylate topcoats, which contain biocides to provide efficient protection for paint film on wood. The products also contain alkyd to improve adhesion to bare wood. These paints have very low water absorption, although the main advantage is that they do not need a separate primer. The Ultra Pro -series provides 3 different types of product, 3 different kind of solutions and are tintable in thousands of colors to meet variable customer needs.

The products are suitable for spraying, brushing and vacuum production lines. Also, they can be overcoated with Ultra products on site.

These paints have been developed to withstand the extreme changes in Finnish climate. Ultra Pro -series can provide structures with a long maintenance interval, even up to 20 years.

HIGHEST QUALITY ON THE MARKET

Ultra Pro Plus 30 is the highest quality polyacrylate exterior topcoat in the Ultra Pro-series of paints. It suits fast production lines and can be dried in elevated temperatures as well as in room temperature.

- · Product is listed in the database for building products that can be used in Nordic Swan Eco-labelled buildings
- Best filling and hiding power in the product series.

OPTIMAL PRICE-QUALITY RATIO

Ultra Pro 30 is the most popular topcoat in the Ultra Pro-series of paints. It's optimal price-quality ratio allows for a cost-efficient project with a high-quality finish on-site. The paint is suitable for fast production lines and drying in elevated temperatures as well as in room temperature.

• Very good filling and hiding power.

OPTIMIZED HIDING POWER

Ultra Pro is an economical polyacrylate topcoat, which protects the surface well against moisture, sunlight and dirt. Even though the paint has been developed to withstand the severe conditions of Finnish climate, it is recommended to be overcoated on-site. Ultra Pro can also be used without special primer.

- Economical tinting technology
- Approved as a fire protection system for exterior claddings with Fontefire WF. Reaction to fire classification: B-s1, d0, EN 13501-1:2007+A1:2009.

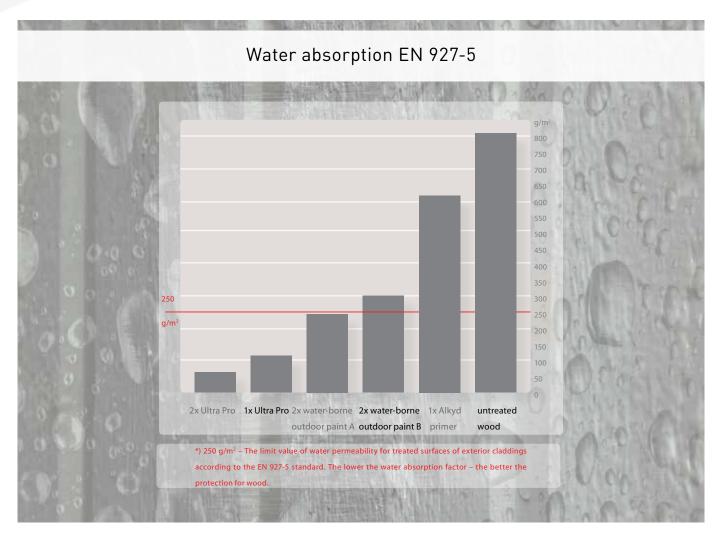
WATER ABSORPTION

There are few key properties of opaque wood coatings: adhesion, flexibility and water absorption. Water absorption is an important factor because of both the resulting dimensional changes of the wood and the risk of deterioration by microorganisms at wood moisture content levels above 20%. The effects of different surface treatments on water absorption in wood have been extensively studied.

Water absorption measurements are specified in EN 927-5. After conditioning the test samples, the samples are exposed to deionized water for 72 hours.

This exposure is achieved by floating the panels on the surface of the water in a filled container with the coating under test facing downwards. This test procedure was carried out in a controlled environment at 20°C and 65% RH. The weight increase of the test samples was recorded after 72 hours.

Below are presented the water permeability values of the treated with different systems and untreated wood. The lower the water absorption factor – the better the protection for wood.



TECHNICAL PROPERTIES

Main advantages	Product name	Code	Density	Volume solids (%)	VOC, g/l
HIGHEST QUALITY ON THE MARKET	Ultra Pro Plus 30 A-base C-base	61V 6001 61V 6003	1,20 1,07	40 35	35±10 30±10
OPTIMAL PRICE-QUALITY RATIO	Ultra Pro 30 VVA-base VC-base	24V 6302 24V 6303	1,16 1,07	36 35	30±10 30±10
OPTIMIZED HIDING POWER	Ultra Pro AP-base CP-base	709 6201 709 6203	1,20 1,14	39 40	20±10 20±10





This durable paint system is cost-effective for it is completely prefabricated at the factory.

Even more durability will be provided with a little additional cost of one time on-site painting.

The most cost-effective solution for your simplest needs.

3 x Ultra Pro 30-series

2 x Ultra Pro-series and on-site painting Ultra Classic or Ultra Matt

2 x Ultra Pro-series

- Theoretical dry film thickness minimum 120 µm
- · Hidden nailing required
- Expected maintenance period is 15-20 years.
- Total theoretical dry film thickness minimum 120 μm
- Traditional nailing
- Expected maintenance period is 15-20 years.
- \bullet Theoretical dry film thickness minimum 80-100 μm
- · Hidden nailing required
- Expected maintenance period is 10 years.

Paint systems with additional application of priming oils and primers are available.

ADVANTAGES FOR OWNERS OF WOODEN HOUSES

CONSTRUCTION ALL YEAR AROUND

Optimized industrial production means more efficient and faster output. The cost savings due to less on-site painting are notable. The process is made easy by pre-painting at the factory so only one session of on-site painting is needed. This is highly recommended though; the added surface treatment improves the durability of the wood and can extend the maintenance interval with 5-10 years.

The process is however possible to be fully completed at the factory where no on-site painting is needed. This saves costs both in working time and materials used. In addition, we offer a wide range of decorative paints for maintenance and on-site painting.

- Painting and drying under carefully controlled conditions
- Construction all year around
- Cost saving due to less costs for on-site painting
- Working time savings
- · Variety of colors and glosses.





Ultra Classic: Hit of sales in Finland. Polyacrylate paint with outstanding properties against weathering.

Base paints: A and C

Colors: Tikkurila color card for Wooden Facades

Gloss: Semi-matt



Ultra Matt: Polyacrylate matt paint with good properties against weathering.

Base paints: A and C

Colors: Tikkurila color card for Wooden Facades

Gloss: Matt



LONGER LIFETIME VALUE

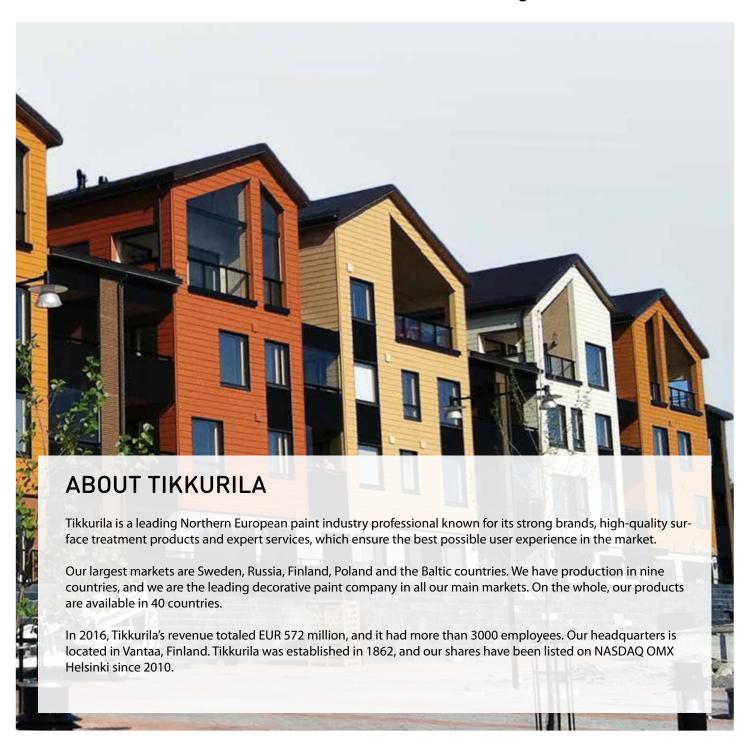
Conclusion: The long tradition of wood construction in Scandinavia has taught us how important it is to protect wood from the ever-changing climate and the stress it bares on wood. The high stress wood materials need to withstand mainly consists of weathering factors such as UV radiation, moisture, blue stain and other fungal growth.

The wish today is to carry out surface treatment of wood fully in monitored and controlled conditions in an industrial setting. The right choice of the paint system of the wooden house can significantly extends the maintenance period and thereby reduces the costs for its service.



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YOUR TRUSTWORTHY PARTNER IN INDUSTRIAL PAINTING

Tikkurila's experienced staff will be delighted to provide you with full details on coating specifications, help in calculating of film thicknesses, as well as assisting in painting processes and inspections. Please contact our technical group staff by phone: +358201912098 or by e-mail: info.coatings@tikkurila.com

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