





# **Revolutionary New Technology**

MicroPro<sup>®</sup> is a revolutionary preservative system incorporating micronized copper and co-biocides to create a new generation of wood preservatives with enhanced technical performance and distinctive environmental and aesthetic product features, when compared to other current copper based systems.

Developed within the US, the preservative system is now used to treat approximately 70% of all timber in United States and is used globally across 4 continents as a highly effective timber preservative system against fungal decay and insect attack in high to low risk applications (UC4-UC1).

European versions of micronized copper preservatives are manufactured, using the proprietary Koppers MicroPro<sup>®</sup> technology, under the control systems of ISO 14001. The recognised standard in Europe for environmental management.

der (Civil Engineering) Ltd

## 19 million m<sup>3</sup>

of MicroPro<sup>®</sup> treated timber sold globally Setting new environmental & performance benchmarks

Photograph courtesy of

## Technology Insight

The traditional method for getting copper into wood is to "Dissolve" the copper in a solvent. Alkaline Copper and Copper Azole all use "Solvents" (MEA or Ammonia) to dissolve the copper.

The MicroPro® system is different; it does not need or use organic solvents for the purpose. The system utilises patented "Micronizing" technology to grind copper particles so small, that they can penetrate the wood in solid form.



Particles

# Looks different because it is different

## Environmental & Performance Credentials

### Best Available Technology

#### Solvent free

MicroPro<sup>®</sup> UL GREENGUARD GOLD Certification indicates that a product has undergone rigorous testing and has met stringent standards for low volatile organic compound (VOC) emissions. Products certified to this criteria are suitable for use in schools, offices, and other sensitive environments. Products bearing the UL GREENGUARD GOLD Certification mark meet strict testing criteria for volatile organic compounds (VOCs), helping to reduce indoor air pollution, minimize chemical exposure and create healthier indoor environments.

## **Enhanced Aesthetics**

#### Lighter more natural appearance

Micronized Timber is lighter in colour compared to current copper based treated products. The unique appearance differentiates the product in the marketplace, permitting contractors to build with treated timber that appears more natural in appearance

#### Pigmented MicroShades® system

Micronized Timber products are also available in an attractive light brown colour when produced in conjunction with the new MicroShades<sup>®</sup> colour pigment system. MicroShades<sup>®</sup> is the first micronized pigmented wood colourant system that can be used 'in solution' as part of the wood impregnation process. This system provides a significantly improved colour life in treated wood products, compared to traditional dye based systems.

### **Reduced environmental impact**

The MicroPro® treated wood process is certified under Scientific Certification System's Environmentally Preferable Product program based on life-cycle assessment. Wood products treated with the Koppers MicroPro® process result in the release of 90% to 99% less copper into aquatic and terrestrial environments when compared to standard treated wood products, which bonds readily to organic matter in the soil and becomes biologically inactive, thus effectively eliminating eco-toxic impacts\*\*

#### **Enhanced performance**

MicroPro<sup>®</sup> can be used in interior and exterior above ground, ground contact and fresh water immersion applications.

The preservative system also dries faster and offers better corrosion resistance for code approved fasteners and hardware and can be used in direct contact with aluminum.\*

MicroPro<sup>®</sup> Freshly treated



MicroShades<sup>®</sup> Freshly treated



MicroPro<sup>®</sup> Weathered for 6 Months



#### MicroShades<sup>®</sup> Weathered for 6 Months

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## **Treatment Process**

Timber impregnation with MicroPro<sup>\*</sup> is achieved using a standard vacuum pressure process, the patented technology being within the preservative system rather than the process. The Koppers WorkNet control system offers further benefits through enhanced control, analysis, optimisation and remote access and control.

The timber is transferred into the treatment vessel.





A vacuum pulls the

air out of the vessel.





The vessel is pressurised forcing the preservative into the timber.



The preservative is removed and final vacuum is applied removing excess.



The timber has now been preserved with MicroPro preservative.



## **Important Information**

MicroPro® pressure treated wood has corrosion rates on metal products similar to CCA pressure treated wood and untreated wood. Use fasteners and hardware that are in compliance with the manufacturer's recommendations and the building regulations for their intended use. When using aluminium products in conjunction with MicroPro® treated wood, refer to the additional MicroPro® Fastener information. For interior or exterior applications, use fasteners and hardware that are in compliance with the manufacturer's recommendations and the building regulations for their intended use. As with any good design and construction practices, MicroPro® treated wood should not be used in applications where trapped moisture or water can occur. Where design and/or actual conditions allow for constant, repetitive or long periods of wet conditions, onlystainless steel fasteners should be used.

- Do not burn preserved wood.
- Wear a dust mask and goggles when cutting or sanding wood.
- Wear gloves when working with wood.
- Some preservative may migrate from the treated wood into soil/ water or may dislodge from the treated wood surface upon contact with skin. Wash exposed skin areas thoroughly.
- All sawdust and construction debris should be cleaned up and disposed of after construction.
- Wash work clothes separately from other household clothing before re-use.
- Preserved wood should not be used where it may come into direct contact or indirect contact with drinking water, except for uses involving incidental contact such as fresh water docks and bridges.
- Do not use preserved wood under circumstances where the preservative may become a component of food, animal feed, or beehives.
- Do not use preserved wood for mulch.

- Only preserved wood that is visibly clean and free of surface residue should be used.
- If wood is to be used in an interior application and becomes wet during construction, it should be allowed to dry before being covered or enclosed.
- Disposal Recommendations: Preserved wood may be disposed of in landfills or burned in commercial or industrial incinerators or boilers in accordance with National and Regional regulations.
- If you desire to apply a paint, stain, clear water repellent or other finish to your preservative treated wood, we recommend following the manufacturers instructions and label of the finishing product. Before you start, we recommend you apply the finishing product to a small test area before finishing the entire project to ensure it provides the intended result before proceeding.
- Mould growth can and does occur on the surface of many products, including treated or untreated wood, during prolonged surface exposure to excessive moisture conditions. To remove mould from treated wood surfaces, wood should be allowed to dry. Typically, mild soap and water can be used to remove surface mould.
- Any surface exposed by drilling or cutting must be coated with a cut end preservative. Failure to do this will reduce the effectiveness of the preservative. It is recommended that the coated ends are not put in the ground or in direct contact with water. Rip sawing, thicknessing and planing are not permitted unless the timber is subsequently processed to the original specification.
- Micronized preserved timber can be glued with most commonly used adhesives once dry. Always use manufacturer's recommendations.

Whatever you build with Micronized preserved timber will last a long time. It makes sense therefore that you take appropriate care of your project.

For more information visit www.kopperspc.eu





Performance Chemicals

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