KOPPERS PLATED PRESERVATION

Koppers Performance Chemicals is expecting to make great gains, thanks to its game changing MicroPro and the latest addition to its Celcure range, Celcure C4. ***Sally Spencer*** *reports*

SUMMARY

- *Osmose was acquired by Koppers Inc in August.*
- *MicroPro accounts for 70% of treated timber in the US.*
- *Micronised copper particles are suspended in a water-based solution.*
- *Celcure C4 is designed for high-risk areas.*

The products and the personnel may be familiar but there's a different name being spoken in the world of timber treatments – Koppers Performance Chemicals.

That's the new incarnation of Osmose, which was acquired by global chemical giant Koppers Inc in August for US$494m (*TTJ September*).

The sale was not unexpected as Osmose had already changed hands in 2012 when it was bought by private investment company Oaktree Capital Management. The understanding was always that the company would at some point be developed and then sold on.

The acquisition by a company which is "in the family of timber preservation" and not solely a chemicals company is an excellent fit, said Matt Hempson, business development director in the UK.

"We have expertise in chemicals but we pride ourselves in our knowledge of how chemicals and timber work together, so we're delighted to have been bought by Koppers," he said. "And I think they were attracted to us not just because of our products but also because of the type of company we are and the way we work with our customers."

Rebranding has taken place at impressive speed – hastened no doubt by the desire to reveal the new identity at Timber Expo in early October (*see pp22-24*).

"Emails have changed, Koppers merchandise has been given out, PR has been carried out in various publications and there is a new website (www.kopperspc.eu)," said Mr Hempson.

The website is the same for the company's global operations – it's a major player in the North America, Africa and the Far East and Australasia – and this "joined up" approach will give customers reassurance that they're part of something big.

"Having said that, our customers will still be dealing with the same people and the same products," said Mr Hempson. "What will change is that in time we will have more resources to develop more products – and maybe do that more quickly than anticipated. There is a great appetite within Koppers to develop new markets."

Koppers Inc, is an integrated global producer of carbon compounds, chemicals, and treated wood products and is one of the world's major manufacturers of creosote, a product which is still widely used in the production of utility poles, railway sleepers and agricultural fencing.

MicroPro treated boards: the MicroShades pigmentation system gives a longer colour life

Creosote use was reviewed by the EU in 2013 and will be looked at again in 2018 and, with this in mind, the UK operation is actively working on alternatives, although Mr Hempson stressed that ending the use of creosote was the last thing on the collective mind.

"That's not our intention at all. Nobody questions the efficacy of creosote and there are 150 years of data to prove it. Customers say they need it and we don't think we should be fighting with our customers, telling them they should be using something else.

"We're very R&D led and we listen to what our customers say," said Mr Hempson, adding that new product formulations were always offered, never imposed.

A key new product for the company in the last few years is MicroPro, which was developed by Osmose in the US.

"Micronisation of compounds has been around for a while – it's widely used in paints, plastics, rubber, coatings and adhesives sectors – and we've taken the concept and applied it to treating timber," said Mr Hempson.

He's referred to MicroPro in the past as being the "seismic shift that fundamentally changes the timber preservation landscape" and says that it has "taken the US by storm".

The new Koppers branding was revealed for the first time at Timber Expo

"MicroPro accounts for 70% of treated timber in the US and the demand has been so strong that we've licensed the technology to our competitors there," he said.

Rather than dissolving copper carbonate, the primary biocidal active, in a solvent, the company micronises it through a series of milling processes to reduce the size of the particles, which are then suspended in a water-based solution. This, along with various co-biocides (quarternary compounds and azoles), is then pressure impregnated into the timber.

Benefits of this type of treatment include faster drying and enhanced fixation of active ingredients and improved compatibility with metal fixings. The real game changers, however, are its environmental and aesthetic credentials.

The micronisation process means there are no VOCs, a fact that has led to the product being awarded the GREENGUARD Children & Schools Certification and perceived as a Best Available Technique within the preservative industry, notably because of positive impact in IED compliance.

Aesthetically, the technology results in a significant reduction of the green tinge associated with traditional copper treatments. In the case of the latest MicroPro formulation MCT-3 (UC3 application), the green tinge is virtually eliminated.

This latter fact is particularly significant in the application of a colour that can be added either as post treatment or via the integrated MicroShades pigmentation system. The natural appearance of the treated timber enables the desired colour to dominate rather than the green tinge, which is simply an undesired by-product.

Furthermore, the MicroShades system, which uses the same micronisation process, enables significant longer colour life when compared to traditional colour systems.

The technology as a whole provides an element of differentiation for the end user and MicroPro is gaining real traction in the UK, said Mr Hempson. "We had some very forward-thinking companies who were early adopters of MicroPro, such as Brookridge Timber and NORclad and now some of the big volume companies are on board."

One of Celcure C4's targeted applications was in the French wine-growing regions

The latest adopter is John Brash, which was an existing Osmose customer and a new convert to MicroPro. The main tank is changing over in December and then the whole site will be MicroPro.

"These MicroPro adopters see that they can differentiate themselves by using this treatment process," said Mr Hempson.

He added that Koppers has been marketing its "specification-type" products, such as MicroPro, through the architectural press.

"We need to educate them in terms of MicroPro's environmental and aesthetic credentials so that rather than simply specifying 'treated timber' they specify 'MicroPro timber'," he said.

If he is confident in his prediction that MicroPro will be as big in the UK as it is in the US, he's über-certain that another of Koppers' recent developments, Celcure C4, will hit the big time.

As its name suggests, Celcure C4 is a Use Class 4 treatment, designed for high-risk areas.

"We're so proud of it and so confident in its durability profile that it will be a pan-European product," said Mr Hempson, adding that previous Celcure products had been formulated for different locations.

"It's already being used in France, Finland, Estonia and Latvia and has just been launched in Ireland and feedback has been fantastic."

As it's a completely new product it has to be approved by the HSE before it can be used in the UK but Mr Hempson says Koppers' customers are raring to make the switch.

"Celcure C4 really pushes the boundaries of water-based treatment to a whole new level," he said, adding that one of its targeted applications was in French wine regions where prolonged use of copper solution sprays to protect vines had led to some fungi becoming resistant to copper.

The new formulation still uses copper (which will act against the non-resistant fungi) in conjunction with quarternary compounds and a "really specific" azole and is "right at the top of the tree" when it comes to power and effectiveness.

Koppers is experiencing growing market share on the back of these new products and growth generally thanks to the upturn in the building sector.

"There is a massive correlation between our business and the construction market," said Mr Hempson. For example, he said, demand for the company's fire retardant treatments, FirePro and Exterior Fire-X, and its low pressure treatment system Protim Frameguard had increased. The latter was developed to reduce the spread of flame during the construction phase of a timber building.

"We've taken the time to do things right and business is going really well." ■

INCISING ON THE AGENDA

While Koppers doesn't sell incising machines, incising technology is still very much on its agenda.

"We recognise that certain species on the market are difficult to treat and that if you want to comply with British Standards in terms of the treatment penetration profile, then incising is a really good way of doing that," said Mr Hempson.

"To that end, Koppers, as a recognised authority in timber technology, is engaging with AV Birch, who we believe to be the best incising provider around, to ensure our customers are partnering with the best available technology."

AV Birch's technology now comprises a round incisor and a square incisor, both of which are stand-alone machines, and a variable speed incisor, which can be incorporated into the manufacturing process.