Springtime

and business is blooming!

With construction activity recovering, demand for both internal and external joinery products is showing a welcome return to pre-recession levels.

So now, our concerns switch from cost saving to capacity constraints, productivity and skills shortages.

It’s never easy to work in the joinery industry!

In this edition we have some novel ideas to add value to your finished joinery, showcase Customer projects highlighting the range and versatility of timber products, and offer some guidance on avoiding time consuming and expensive site complaints. We also have feature articles on:

- Teknos’ hygienic coatings for internal doors, cladding and walls
- News of Teknos Pro, our new range of brushing products for the professional decorator
- Teknosafe 2407, with news of extended approvals and a guide to meeting the new fire regulations

We hope you find these articles interesting. You can find more information about Teknos and our products on the web at www.teknos.co.uk and if you would like more information or to feature some of your own news, please contact your sales representative or e-mail us at: sales@teknos.co.uk.
Teknos with SteriTouch®

Anti microbial finishes for healthcare, schools, nurseries and kitchens

Teknos’ range of interior wood finishes are now available with added anti microbial protection, providing additional reassurance in applications such as healthcare, education, nursery, childcare, kitchens and washrooms.

Applied to internal doors, mouldings and fittings, Hydroline clear lacquer with SteriTouch® and Kristall Topp white and opaque finishes with SteriTouch® help combat bacterial growth, mould and fungi on sensitive surfaces where hygiene is important.

SteriTouch® Technology

SteriTouch® contains silver, which has a long established use in sterilising and infection control. When bacteria are present on the coating surface, the silver ions in the paint disrupt the bacteria’s cell structure, preventing cell replication and killing the bacteria itself.

The silver additive is dispersed throughout the coating film and efficacy is not affected by scratches or abrasion. Also, the anti bacterial properties are unaffected by cleaning chemicals, disinfectants, or common detergents, so surfaces can be wiped clean without any reduction in performance.

Product availability

Hydroline clear lacquer with SteriTouch® is available in 20% and 80% gloss

Kristall Topp with SteriTouch® is available in white gloss and satin and a complete range of solid satin colours.
Independently Tested

Hydroline clear lacquer with SteriTouch® and Kristall Topp with SteriTouch® are independently tested to ISO 22196/JIS Z 2801:2000 international Standards.

In the test, coated surfaces are inoculated with common bacteria then incubated at 35°C for 24 hours. A sterilised polyethylene film is used as a control surface. The bacteria population is evaluated at the start and end of the test.

<table>
<thead>
<tr>
<th>Sample</th>
<th>Description</th>
<th>Number of live organisms</th>
<th>0 hours</th>
<th>24 hours</th>
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<tbody>
<tr>
<td>Control</td>
<td>untreated polythene film</td>
<td>120,000</td>
<td>150,000</td>
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<td>A</td>
<td>Paint with 0.5% ST1003</td>
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<td>B</td>
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**MRSA: tested at 35°**

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<tr>
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<td>B</td>
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<td>100,000</td>
<td>&lt;10</td>
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**E. coli: tested at 35°**

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<td>100,000</td>
<td>&lt;10</td>
<td></td>
</tr>
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</table>

*Source:* Anti Microbial Test Division, Kyoto Biseibutsu Kenkyusya, Japan

Bacteria levels fall by > 99% on Hydroline with SteriTouch® and Kristall Topp with SteriTouch® surfaces, but multiply on the control surface.
Windows fit for a castle

Callaghan Sash Windows chosen for Ashford Castle refurbishment

The magnificent five star Ashford Castle, on the shores of Lough Corrib, Co Mayo, is set in 350 acres of picturesque parkland and was listed in Europe’s top 10 Resorts by Condé Nast Traveler Readers in 2014.

Dating back to 1228, the castle, now part of The Red Carnation Hotel Collection, is undergoing extensive refurbishment and will re open in Spring, 2015, with 82 guest rooms, a wealth of activities and the promise of Irish hospitality on a grand scale.

Callaghan sash windows carried out sliding sash window restoration in this prestigious project. The project involved many challenging aspects which included the manufacture of new windows and the refurbishment of the extraordinary original windows. The originals were taken back to their former glory incorporating some energy efficiencies while not compromising on the character. Callaghan sash windows were and are very proud to be part of an excellent team which restored the hotel to lofty standards, even exceeding where it had been before.

Callaghan Sash Windows
Ogenstown, Boyerstown
Navan, Meath
Ph: 00353 (0)46-9023323
Web: www.sashwindowsirl.com
Modern Timber Design

*Murdock’s work with Spraytec to demonstrate how supply chain partnerships get the job done...*

Murdock Builder’s Merchants, supported by Spraytec and sister company Cranwood Industries, are justly proud of their role in the beautiful new exterior at Lagan College.

Murdock’s supplied the timber, which forms a central part of the impressive new extension at the college, which was factory coated by Spraytec using Teknos Aquatop protective coatings.

Cladding has been used extensively throughout the new 10,000 m² extension, with Western Red Cedar selected to help blend the new facade with the existing building. Murdock’s supplied the kiln dried Western Red Cedar through it’s sister company, Cranwood Industries.

Western Red Cedar is a popular choice for external and internal claddings, due mainly to its distinctive colour, decay resistance, and good durability.

The cladding was prefinished before installation using Teknos’ Aquatop 2600 exterior paint which provides a flexible, durable, protective film which resists bacterial, mould and UV attack.

“We are delighted to have been involved in such a successful project,” explained Martin Trainor, Manager at Cranwood Industries. “We are committed to being an integral and reliable part of the supply chain for major projects such as this, and working on Lagan College has, once again, allowed us to demonstrate our capabilities.”

Murdock’s, who supply a full range of construction products and services, are one of Ireland’s leading timber suppliers and all their branches have FSC, PEFC and MTCC Chain of Custody Certification.

Contact: Murdock Builder’s Merchants
Newry
Tel: 028 3025 8683
TeknosPro

Paint with pride for professional people

In 2015, Teknos are introducing TeknosPro, with a new range of multi surface products designed for professional decorators.

The TeknosPro range complements Teknos’ established factory applied joinery coatings and includes specialist finishes for internal walls, metal and wood.

The TeknosPro range is easy to apply by brush or spray, and based on low odour, quick drying, water-based technology.

TeknosPro will be available through specialist merchants in Scotland with the distribution network being extended throughout the UK during 2015/16.

Visit www.teknospro.co.uk for more information.

Contact: David Hutchison
Teknos Scotland
Tel: 01506 436222
The TeknosPro range lends itself equally to the quality demands and time constraints of new build projects or the low disruption, fast access required on many maintenance jobs.

Products are formulated for easy brush and roller application, excellent coverage and flow, quick drying and low odour.

With over 750 standard shades available, TeknosPro offers a colour and finish solution for even the most adventurous designer!

TeknosPro range includes: high coverage internal wall finishes; wipe clean paints for kitchens and bathrooms; superior wood and metal finishes suitable for use inside or out; translucent finishes to maintain the natural look of wood doors, stairs and floors; and specialist primers to seal and protect difficult or problem surfaces.

For sensitive areas, such as hospital and health care facilities, schools and nurseries, Timantti Clean provides a cost effective, durable, antibacterial wall finish meeting ISO 22196, while outside TeknosPro’s Woodex® systems protect and decorate decks, cladding, handrails, garden furniture and gates.

TeknosPro coatings are water based, comply fully with European VOC emission Standards and REACH regulations, and manufactured to ISO 9001 quality and ISO 14001 environmental Standards. Teknos paint and coating products do not contain lead, chrome or other heavy metal additives.

Visit www.teknospro.co.uk for more information.
St Andrews Development

Parkland colours complement contemporary bespoke garden

When Steve Boyd of Lee Boyd Architects wanted to create a contemporary outside space for his property in St Andrews he had very specific ideas of the look and colour he wanted to achieve. Having spent a lot of time researching the correct shade he came across Teknos.

Teknos’ Parkland and Lodge range fitted the bill perfectly, with its modern translucent shades adding colour without hiding the texture and shading of the wood.

The cladding boards were fully factory finished and supplied by Russwood of Newtonmore, Invernesshire, using Teknos’ Aquatop 2600 in Parkland shade PR550. The raised flower beds and garden furniture were hand finished by Steve himself.

Steve Boyd was impressed with the colour continuity between the vacuum coated cladding and the hand painted flower beds and furniture and delighted with the overall end result, so much so he promises to recommend and specify Teknos for all appropriate applications in the future.
Teknosafe 2407

Application classifications extended for sawn and planed spruce board thicknesses

Teknosafe 2407 is an intumescent fire resistant coating, suitable for external use, which allows Spruce cladding and boards to achieve a Euro class B fire resistance rating.

Coated with an approved Teknos topcoat, Teknosafe systems offer maintenance intervals of up to 10 years.

Teknosafe 2407 systems are accredited by Classification Reports issued by a ‘Notified Body’ (BS EN 13501 Part 1) and supported by test evidence supplied by an independent accredited laboratory to BS EN 13823 (Single Burning Test) and BS EN 11925 (Small Flame Test).

Approved Systems:

Currently, Teknos hold Classification Reports and independent test evidence for cladding board coated with the systems shown below. Additional work is underway to provide test evidence over a wider range of board thicknesses.

<table>
<thead>
<tr>
<th>Preservative</th>
<th>N/A</th>
<th>Teknosafe 2407 @ 350 g/m² wet film weight</th>
<th>Teknol Aqua 1410 @ 150 g/m² wet film weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coating System</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Substrate</td>
<td>Sawn Spruce</td>
<td>Planed Spruce</td>
<td>Sawn Spruce</td>
</tr>
<tr>
<td>Board thickness</td>
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<tr>
<td></td>
<td>22 mm</td>
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<tr>
<td></td>
<td>19-57 mm*</td>
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<td></td>
</tr>
<tr>
<td>Test structure</td>
<td>Cladding board with ventilated void</td>
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</tr>
</tbody>
</table>

Important Note:

Teknosafe system Classification Reports issued by Notified Body are specific to the board type (timber species), thickness, and the mounting system used in the test. A Notified Body may require additional partial or full retesting if the treated board being sold differs materially from the board described in the test results.

Intumescent fire retardant coating suitable for exterior use

Teknosafe 2407 achieves Euro class B fire resistance on Spruce cladding and maintenance intervals of up to 10 years when coated with an approved finish.

The Euro class B-s1, d0 classification is the highest achievable on organic materials such as wood.
The new fire regulations have caused some confusion in the construction market. Coatings, for example, do not of themselves have a Euro class B rating, but are rated as part of a system which includes both the substrate and mounting system. So unlike the old fire classes, painting timber with an intumescent or other FR paint does not of itself comply with the new regulations.

The sale of treated, fire retardant, construction products is now regulated by the Construction Products Regulation (CPR), an EU wide Regulation which is incorporated into National laws. The Regulation is increasingly being closely policed, so it is important Customers understand their obligations under the legislation and the role of the coating supplier.

A Customer buying Teknosafe, and applying it to cladding board for onward sale as a Euro class B Standard board, must follow the procedure below:

1. The treated board must have a Product Approval and Certificate of Conformance issued by an independent Certification Body and be CE marked by the Customer at the point of sale

2. Teknos will provide the Customer’s chosen Certification Body with a Classification Report and provide, in commercial confidence, supporting test evidence for the Teknosafe/Nordica Eko coating system

3. The Customer must submit details of their Factory Production Control system and any other supporting information required by the Certification body in order to obtain product approval

4. The approval, and associated Product Certificate of Conformance, support the treated board CE Mark, and are specific to that product and Customer ... they are not transferrable

5. The cost of this Approval process falls on the Customer since they benefit from it exclusively. The cost of obtaining the coating Classification Report and supporting test evidence for the Teknosafe/Nordica system has been previously paid by Teknos and is included as part of our system supply package

6. If a Customer’s product falls outside the scope of Teknos’ Classification Report (e.g. an alternate substrate), the Notified Body may require further fire testing. The cost of this testing will normally fall to the Customer, since the result will relate to their board and they will be the beneficiary

7. The coating supplier’s role is restricted to the supply of the coating and its Classification Report, test data, and specifications

8. The majority of Teknos Customers are merchants and convertors, who sell on treated board. Their obligation is to supply a CE marked product that consistently meets the description in their Certificate of Conformance (Approval document), typically be ‘a board or sheet meeting Euro class B’. However, it is not their responsibility to specify fixings, methods of use or application. These are the responsibility of the installer and out-with the control of the board or coating supplier.

9. Since Trade Coaters are providing and invoicing a process, but not selling the treated board, they generally fall outside the scope of the Regulations, but will normally be required to submit production control data to support their Customer’s application for a Certificate of Conformance.
Teknos technical update

Avoiding site problems on factory finished exterior joinery

Factory finished joinery is now standard in the UK construction industry, and with service lives up to 60 years, A+ environmental ratings, and lower lifetime cost than plastic or metal frames, it is not surprising wood’s market share is growing.

Timber windows and doors, factory coated with modern water based paints only require repainting every 8 to 10 years and re-painting, to refresh appearance and top up protection, is quick and easy.

Where problems do occur, they could usually have been avoided by taking a few simple precautions.

**Milking and blistering**

Usually seen soon after exterior joinery is fitted and often in cold, wet, conditions.

Though most water based paints typically dry within a few hours, it takes longer for all the water within the film to evaporate and up to seven days for the paint film to fully cure. Early exposure of painted joinery, particularly in damp, cold conditions, can cause the paint to blister and translucent finishes to look ‘milky’. Typically, as the weather improves and the paint fully dries and cures, these defects disappear without further treatment.

Storing paint in a warm room before use and maintaining good airflow and a moderate temperature in the drying area help avoid these problems. Leave fans and background heating on overnight particularly during cold weather. In winter, before site fitting, it is good practice to store finished joinery, unwrapped, for an extra day in a well-ventilated and moderately heated drying area.

**New Build**

Wet work, such as plastering and floor screeding, can cause problems when windows and door sets are fitted before internal work is complete.

Screed slurry is a 10:1 mix of water to solids and, as it dries, the water can escape through wooden frames, causing blisters under the external paintwork. The problem is worse in winter when the inside areas are heated, the windows closed and the building poorly ventilated.

This is not a joinery or paint fault but can be avoided by properly ventilating the building and using dehumidifiers in critical areas.

**Extractive staining**

Soluble tannins, which are naturally present in timber, are the main cause of timber staining in hardwoods and around softwood knots.

Moisture is a major factor in tannin migration. When dry joinery from the factory is exposed in wet or humid conditions, the rapid uptake of moisture mobilises tannin and heat and sunlight draw them to the coating surface.

Stain inhibiting primers provide an effective solution for hardwood staining, provided the paint system has fully cured before initial exposure, but are less effective on softwood knots. Knotting solutions can help, though the only effective solution is to eliminate the knot by using a clear face laminate.
Resin bleed

Resin is naturally present around knots or in ducts or latewood bands within the timber. It is not water soluble, but preservative solvents and heat, can cause resin pockets close to the timber surface to change from a solid to a liquid, and even to a gas. Resin bleed is often seen on southern elevations and under darker coating colours, which absorb more heat from the sun.

Selecting knot free or laminated timber is the best way to minimise the risk of resin bleed. There are no effective coating or other treatments and the resin ducts are rarely visible during the joinery manufacturing process.

If bleed occurs, do not try to remove fresh sticky resin since exudation may still be active. It will dry to a white crystalline powder which can be removed with a stiff brush, and any residues wiped off with methylated spirits. Immediate re-coating may be unnecessary, since permeable water based coatings often allow the passage of resin to the surface without damage to the coating itself.

‘Best Practice’ Design

Moisture penetrating joints and seals is the most common cause of premature coating breakdown. Good assembly and design will eliminate most problems and following BS EN 644, which sets out best manufacturing practice for exterior joinery, is an excellent starting point, particularly in our wet climate.

Critical points to look out for are:

• Exposed end grain, readily absorbs moisture, causing discolouration and reducing paint adhesion. A full glue joint protects end grain within a joint but exposed end grain should be sealed with two coats of Teknos’ End Grain Sealer. Construction and mitre joints can be treated with either our V Joint Sealer or our Multi Purpose Adhesive Sealant. Sealing end grain will significantly extend the life of the coating.

• Ideally, windows and doors should be set back from the face of a building. Avoid projecting cills, but where present, cills and non-vertical surfaces must show efficient water shedding, with a slope angle of at least 9°.

• Surface tension causes paint to flow away from sharp edges. A minimum radius 3mm is required on external and 1.5mm on internal edges to avoid thinning of the coating system.

• Joinery design should exclude water traps, and any gaps be sufficiently wide to prevent capillary draw of water; typically we recommend a 3mm gap.

• Fixing pins, must not allow water ingress. Secret nailing is a good solution; but if pins are punched below the surface, they must be filled to prevent water ponding and secondary filling may be necessary to account for shrinkage.

• Horizontal glazing beads are a common weak point, with splitting, twisting and warping of the bead breaking the integrity of the glazing joint, allowing water to flow off the glass, penetrate behind the bead and enter the glazing rebate. Stable, water resistant wood composite beading is an increasingly popular way of eliminating these problems, while setting beads on a bed of Multi Purpose Adhesive Sealant will also help prevent water penetration.
teknos.co.uk
Customer Service 24/7

Latest News
Find out the latest news and advice from Teknos at www.teknos.co.uk

We hope our website is easy to navigate, and offers a good user experience for the growing number of Customers using tablets and smart phones to view information. If you feel we could improve your online experience please send us your feedback.

Information on tap
At teknos.co.uk you can access product literature, technical and safety data sheets, colour collections, application procedures and maintenance guides. Set us as a homepage tab to be sure you are always up to date.

Full eCommerce capability
Our website provides 24/7 Customer Service, and full eCommerce capability, so you can place your paint order at your convience, even when our offices are closed. Existing customers should email us for log in details to get full use of your account facilities.

Teknos GBI
Teknos is one of Europe’s leading suppliers of industrial coatings. We provide technical support and delivery services throughout Western Europe from 3 service centres, located at Swerford, near Oxford, Livingston and Belfast. For further information, please contact your local service centre.

www.teknos.co.uk