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a huge success**

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Note from the CEO



The Australian Timber Flooring Association (ATFA) welcomes you to the third issue of Timber Floors. The feedback from our first two issues has been fantastic, with the result that we have increased our distribution considerably.

This issue also highlights another great success for ATFA – the 2007 ATFA Convention. This year we changed the format from expos of previous years, splitting the convention into two

halves to include the conference in the morning and exhibition in the afternoon.

The conference component received rave reviews from the full complement of 120 delegates and included industry speakers, overseas guests and specialist guest speakers. This year witnessed more exhibitors than ever before and over the two days saw almost 1000 people through the doors. The convention closed on a very positive note with the first ever industry dinner and annual awards presentation, hosted by Mike Whitney.

We now look forward to the next conference in Melbourne (9 - 10 October at the Melbourne Exhibition Centre) which will be bigger and better again. 2008 will also see our first exhibition in Perth WA, scheduled for the first half of the year.

On an official note, the ATFA AGM, at its convention meeting, voted unanimously to change its status to a Company Limited by Guarantee. This will provide ATFA with greater opportunity to expand its services and further grow its business for the betterment of its members and the industry.

We trust you will enjoy this issue and welcome any feedback to our editor.

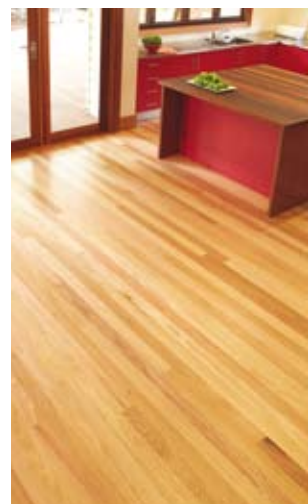
Randy Flierman, CEO

Australian Timber Flooring Association

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Cover image:
Stringybark classic grade
Uni-Nail T+G flooring from
Boral Timber Flooring



Oven dry testing for ATFA members

Resistance moisture meters are a good, quick way to assess approximate moisture contents of timber flooring on site, but the only way to find out the absolute moisture content of a species is through an oven dry test.

An oven dry test is the most accurate method. It doesn't rely on calibrating back to a species so knowledge of the wood used (such as in a mixed hardwood) is not important.

In the past, it has been difficult to get independent oven dry testing done for flooring installers who needed it.

ATFA now offers this service to members. Just fill in the form on the ATFA web site and send the sample to the ATFA Technical Manager - 7 Coachwood Court Mackenzie QLD 4156 for testing. There is a nominal fee of \$75.00 for up to six samples.

Testing takes approximately two days from the time the samples are received and reporting can be expected a day or two later. When complete you will receive a certificate indicating testing carried out to AS 1080 and if desired it can also include other aspects with regard to compliance with AS 2796.1 or similar.

Oven dry testing is important when you need to

- To accurately assess the moisture content for compliance prior to installation
- To evaluate more accurately the expected movement in a floor after installation
- To check against resistance moisture meter readings where no species correction figures are available
- Where the species of flooring used is unknown

For more information on how to get an oven dry test done, go to www.atfa.com.au or call 1300 361693. *f*

ATFA's new 1300 numbers

To make ATFA more accessible to its members, the association has launched new 1300 phone and fax number services. You can now call ATFA for the cost of a local call from anywhere in Australia (excluding mobile phones).

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Clarke
American Sanders

Member profile: Synteko

Synteko has been distributing superior products and services to the Australian flooring industry since 1954, to make sanding operations easier and more efficient.

Synteko is the brand name for floor finishes produced in Sweden and America by Akzo Nobel, said to be the largest decorative paint company in the world with sales exceeding \$US 19 billion.

The company has provided a comprehensive range of high quality floor finishes and maintenance products for all kinds of timber floors, from traditional solvent based finishes through to natural oil based coatings to environmentally friendly waterbased finishes.

Synteko's range of floor finishes includes the ultimate cost effective "Swedish Finish" known as Classic, the environmentally friendly water based Best (two component) and Pro, Synteko Urethane and Synteko Solid Oil, recently given the 'seal of approval' by the Sydney Opera House, home to one of the many commercial applications of Solid Oil.

All Synteko products offer beauty, durability and affordability without compromising the health and safety of the professional floor sander or their customer.

Synteko's goal has always been to introduce innovative products to the Australian market, and has teamed up with Galaxy Floor Sanding Machines to introduce the patented combination 8" and 12" drum/belt floor sander.

Galaxy not only produces the most powerful sanding machine in the world, but now has a new two speed Edger, already taking the US market by storm. Another innovative floor sanding machine from Galaxy, the Eagle 8, delivers superior results in less time and with operational ease, taking professional sanding to the next level.

Recently Synteko also introduced the Primatch range of nailers, featuring precision made serrated cleats that ensure the permanent fixing of the timber floor.

In keeping with their goal of bringing new products to the market, Synteko has launched Trek Plus 15, the next generation of waterborne timber floor finishes, together with its sister product, Grand.

Contact Synteko on 02 9406 8100 or visit synteko.com.au. **f**



Louis Vitton Sydney global store, Castlereagh Street, Sydney, finished with Synteko Solid on Spotted Gum




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Contact Synteko on (02) 9406 8100 or visit www.synteko.com.au 

Species feature: Messmate

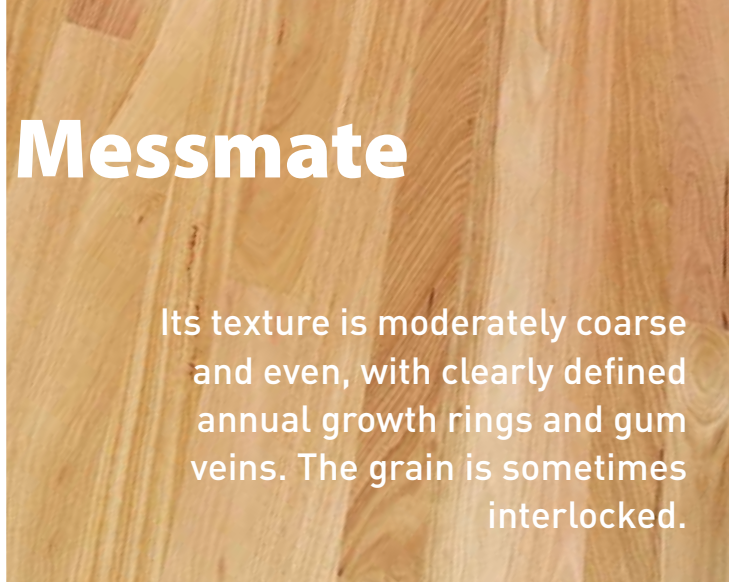
Messmate (eucalyptus obliqua) was used for many years as a subfloor beneath carpeting and in general construction rather than as a decorative product. It has since had a revival as lighter species are sought after and is now in high demand for flooring.

The Messmate tree is a large hardwood found in southern Queensland, the tablelands of New South Wales and throughout Victoria and Tasmania. It grows up to 90 metres tall, with a trunk up to three metres in diameter, thick, rough, stringy bark and glossy green leaves.

Its texture is moderately coarse and even, with clearly defined annual growth rings and gum veins. The grain is sometimes interlocked.

Messmate timber flooring has a warm natural palette of light nut brown tones with pink undertones, ideal for producing beautiful timber floors. The sapwood is pale brown while the heartwood is light brown.

It has a hardness or janka rating of 7.5. *f*



Its texture is moderately coarse and even, with clearly defined annual growth rings and gum veins. The grain is sometimes interlocked.



Image used with permission from ITC Timber



**Sustainable
Australian Hardwood**



Messmate Timber Flooring

- Premium Quality Sustainable Australian Hardwood
- Milled from regrowth Messmate (Eucalyptus Obliqua)
- Warm natural palette of medium light nut tones with pink undertones
- Kiln dried and quarter sawn
- Available in solid strip flooring
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THE NATURAL SELECTION



2007 ATFA Convention a huge hit!

With approximately 1000 people through the doors of the exhibition, a full conference of 120 delegates and a fantastic dinner and awards night, the 2007 ATFA Convention has been hailed a huge success.

A total of sixty timber flooring professionals exhibiting at the convention had the opportunity to promote their business to close to a thousand people who walked through the doors of the exhibition during the two day convention.

Phil Cutts from Mariposa, winner of the Best Booth at the convention, describes the exhibition as extremely worthwhile. "The stand generated a lot of interest and certainly gave us the opportunity to make a lot of new contacts," said Phil.

The conference, held in the morning, was booked out well before the convention, and proved to be the key ingredient in satisfying both visitors and exhibitors.

The conference received rave reviews and included industry speakers, overseas guests and specialist guest speakers.

Some of the highlights included an industry overview from Christine Coates (see full report on opposite page), as well as an excellent contribution from Rob Hartnett, who closed with great advice on small business opportunities and marketing.

The afternoon exhibition sessions were complemented by ongoing, free, live demonstrations which included the exceptional skills of Daniel Boone from the USA, who demonstrated timber bending and floor repair techniques. Exhibitors remarked that the event was extremely positive, as well as the fact that the conference had proven to be a great drawcard for the exhibition component.

The Convention closed on a very positive note with the first ever industry dinner and annual awards presentation, providing a fitting end to the few days and an opportunity to mingle and enjoy a relaxing evening.

Cricket legend and TV presenter Mike Whitney gave a very entertaining speech about his cricketing exploits and what it was like to share a hotel room with Merv Hughes! He was a great speaker and chatted with guests until after midnight.

ATFA is already making plans for the next convention, to be held at the Melbourne Exhibition Centre from 9 - 10 October. 2008 will also see the first exhibition to be held in Perth, planned for the first half of the year. **f**



Mariposa, winner of Best Booth at the convention



Cameron Luke (second from left) on the Lagler Australia stand



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Conference highlight: Chris Coates

One of the highlights of the ATFA 2007 Convention was a packed-out presentation by hardwood timber flooring expert from the USA, Christine Coates. Here we feature some of her key points on trends in timber flooring.

Timber flooring has truly become part of the global economy. Australian, European and American architects are sourcing their timber species from as far afield as Africa with flexibility in manufacturing and the advent of online marketing fuelling this trend.

In the USA, South American and Australian hardwood timber species are sought after by architects and designers over their own readily available supply of oaks, maple and cherry. As consumers become more educated about previously unknown species, so the international demand for Australian species will increase.

Timber flooring trends for the future are all about variety. Prefinished, engineered, exotic species, solid, wide width boards and custom finishes are capturing the imagination of architects, designers and homeowners.

In the 21st century, timber flooring is a diverse product offering far beyond a simple species range and single board width installed over joists.



"The 'sex appeal' of the massive range of looks that can be achieved with wood flooring is driving the public interest and creating unprecedented demand," says Christine.

Capitalising on this demand requires flexible manufacturing, educated sales people, excellent installers and clever marketing.

"Flooring contractors need to capture this market by educating themselves on new products," says Christine. "They should try new flooring systems, new finishes, new tools and new adhesive products. Their vans should display key features such as dustless sanding, waterbased finishes and that they're ATFA members."

The green movement is not just a trend but a true shift in the global market place. Recycled timbers, rapidly renewable species such as

bamboo and certified, sustainable resources are leading the way. This is a huge opportunity for the timber flooring industry as wood boasts much better environmental credentials than many other floor coverings. *f*



Christine Coates, from San Francisco, has spent much of her life around hardwood flooring. Her family has run a timber flooring business since the 1920s and she has a degree from Berkeley in Resource Management, specialising in forestry. Chris is a past president of the National Wood Flooring Association (USA) and is currently an instructor with the NWFA training program and contributor to the association's installation guidelines. She now operates her own business consulting in the areas of sales and marketing, manufacturing and trend forecasting for both domestic and international wood flooring companies.

Lucky guy: Andrew Sherrif from Cost Less Floor Sand and Polishing in Victoria won the convention lucky door prize worth over \$6000!



Special thanks to our door prize Silver Sponsor Cleancare who donated an Orbital Timber Floor Sanding Machine with vacuum valued \$3,200. Other sponsors of the lucky door prize include ATFA, Slipstick, Synteko, Regupol, Hermes Abrasives, Deck-Max, Urethane Coatings, Lagler Australia, Flooring Magazine, Timbermate, Bostik and Mirotone.

Floor of the Year 2007

Generously sponsored by

Boral Timber Flooring

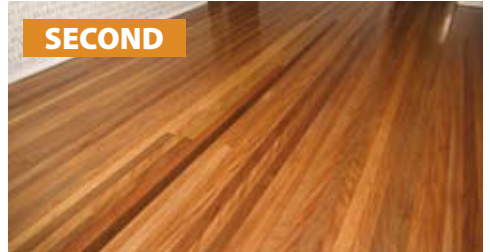
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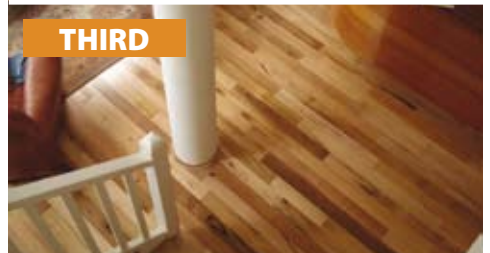
Residential Pre-Finished



WINNER!



SECOND



THIRD

- First place** - Mariposa Group Pty Ltd
Finish - Liquid Diamond **Pattern** - Fendi
- Second place** - RJ&H Hobbs
Finish - Waterbased **Pattern** - Strip
- Third place**- Cork & Parquetry Specialists
Finish - UV Cured **Pattern** - Recycled fence palings as strip flooring

Commercial Prefinished



WINNER!



SECOND

- First place** - Mariposa Group Pty Ltd
Finish - Liquid Diamond
Pattern - Herringbone
- Second place**- Mariposa Group Pty Ltd
Finish - Liquid Diamond
Pattern - Various

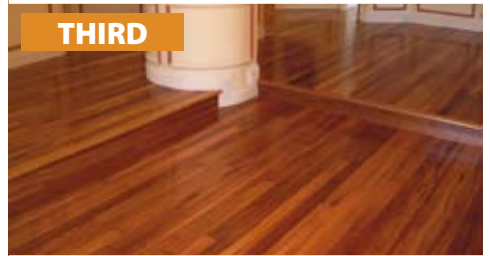
Residential Site Installed



WINNER!



SECOND



THIRD

- First place** - Airthrust Parquetry Flooring
Finish - Water based and hand stained
Pattern - Chevron
- Second place** - Appadene Forest Products
Finish - Waterbased
Pattern - Feature panel and strip
- Third place** - Solid Floors
Finish - Solvent poly semi gloss
Pattern - Strip flooring

Commercial Site Installed



WINNER!

See page 22 for the feature story on this floor



SECOND



THIRD

- First place** - Floors by Powell
Finish - Water based
Pattern - Strip flooring with inlay
- Second place** - PKF Qld
Finish - Waterbased
Pattern - Strip flooring
- Third place** - Airthrust Parquetry Flooring
Finish - Waterbased
Pattern - 6 finger mosaic parquetry

ATFA Awards for excellence

Congratulations to the following winners of ATFA awards for excellence in 2007!

Apprentice of the Year sponsored by Woodwise

James Shephard (Be Floored)

James Shephard is only 16 and in his first year of his apprenticeship but he has already developed a level of maturity and responsibility that would normally only be seen in a fourth year apprentice. His employers, Be Floored, remarked on his desire to learn and are confident of even giving him supervisory roles. In June this year James attended the ATFA US School in Melbourne and was noted as an outstanding tradesperson of the future by all the American instructors.



Employee of the Year

Scott Tomes (Apex Floor Sanding)

Scott Tomes is the Estimator and Works Manager at Apex Floor Sanding. Scott started in the industry as a 16 year old floor sander, eventually progressing to supervisor. Scott is a perfectionist who always ensures his clients are happy, which is why he is now responsible for major projects. At 25 Scott contracted leukaemia and battled this for two years before returning to work and taking up his responsibilities again. Five years on, he is now free of the disease and enjoying his ever expanding role with Apex.



Contractor of the Year

**Airthrust Parquetry Flooring
Terry and Rhonda Potten**

Airthrust Parquetry Flooring is a long established and respected company based in Victoria. Its reputation has seen the company complete projects in most states of Australia and a very prestigious project in China. Airthrust is renowned for its versatility, product knowledge, skills and installation methods in both domestic and commercial environments. With over 40 years experience in the industry and a level of quality second to none - a clear winner!!



Pictured above L to R: Apprentice of the Year James Shephard from Be Floored with Mike Whitney and Woodwise sponsor Christine Coates; Employee of the year Scott Tomes from Apex Floor Sanding is congratulated by Mike Whitney; Contractor of the Year Terry and Rhonda Potten from Airthrust Parquetry Flooring with Mike Whitney and ATFA President, Robert Clague.



ATFA Board Members back row L to R: Kendall Waller, Robert Clague, Paul Keily, Glyn Taylor, Joe Potter, Malcolm Johnston; front L to R: Kathy Sultana and Cameron Luke.

timber coatings



Bostik

ultracote

**Bostik's New Ultracote Polyurethane
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www.bostik.com.au

Bostik launches new coating

Recognising the need for a solvent based coating system for inclusion in their engineered flooring system warranty, Bostik has developed a new range of products.

Ultracote, the new range of moisture cured coatings includes a sealer, gloss or satin finish timber coating and a number of additives, such as wet edge extenders.

"We get regular feedback from our timber flooring guys, not only on the products they're using but also on what they'd like to have made available to them," says Bostik's National Manager, Flooring, Tony Reed.

"This is a totally new product, produced locally for the Australian flooring market."

Ultracote has been trialled by some of Bostik's major contractors who are familiar with Bostik's products and to date the feedback has been very positive. Bostik is now finalising contracts for projects in NSW over 10,000m² which should generate immediate exposure.


"Ultracote complements our existing range of timber floor coatings and we can now offer our customers an alternative coating system should their clients require it," explains Tony.

The Bostik system includes Ultraset Timber Flooring Adhesive, Moisture Seal Vapour Barrier, Ultralevel cementitious based flooring compounds and Boscote water based polyurethane coatings.


It now also includes Ultracote which is included in the engineered flooring system warranty. *f*




Ultracote is easy to apply and is quick drying so two coats can be applied in one day.

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First chain of custody certification for Australian Solar Timber

Kempsey-based Australian Solar Timbers (AST) has become the first Australian mainland hardwood flooring manufacturer to be accredited under the Australian Forestry Standard (AFS) Chain of Custody Certification Scheme.

AST's high quality Australian native timber flooring can now carry the certification mark that provides consumers with the assurance that they are buying wood from sustainably managed Australian forests.

"Certification combined with our use of solar energy to power our timber drying kilns shows AST's commitment to the environment and sustainability and makes AST one of Australia's most environmentally friendly timber companies," commented David Head AST Marketing Manager.

AST produces 16 northern NSW species, unique in their beauty and hardness and with ideal properties for flooring.

Federal Forestry Minister Senator Eric Abetz officially launched the accreditation of AST in Kempsey in November.

AST employs over 90 people at its purpose built mill at Kempsey and distributes its products nationally through a range of independent distributors in each mainland state.

General Manager Tracy Goss said, "AST is proud of its Chain of Custody accreditation and to have the opportunity to promote sustainability in the forest industry in Australia."

AST is the first company to be Chain of Custody certified in NSW. It sources the majority of its timber from Forests NSW and has a wide range of species available under the independently audited Chain of Custody certification. **f**

Pictured below, L to R: Tracy Goss General Manager AST, Luke Hartsuyker Federal Member for Cowper, Senator Eric Abetz Federal Minister for Fisheries, Forestry and Conservation (holding certificate) and Chris Jones Chief Financial Officer and Systems Manager AST.



Australian Forestry Standard

Chain of Custody (CoC) provides a certification chain that tracks a wood or forest product from its origin in a certified forest through to its end use as a timber product purchased by the consumer. CoC covers all intermediate steps such as harvesting, transportation, primary and secondary processing, manufacturing, re-manufacturing, distribution and sales.

The Chain of Custody Standard [AS 4707-2006] is for voluntary application by any organisation that seeks to assure its customers that the timber products they buy are sourced from a certified forest.

For further details on the Australian Forestry Standard and CoC visit www.forestrystandard.org.au

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The evolution of waterborne polyurethanes

Waterborne polyurethanes have advanced significantly in their technological developments over the last decade, while solventborne polyurethanes have remained static. Here, Joe Potter of Orica Woodcare, discusses the development of waterborne polyurethanes.



Joe Potter
Commercial Manager
Orica Woodcare

With solventborne polyurethanes having reached their technological maturity many years ago it is symptomatic that there have been no basic advances in that technology for a decade or more. The formulations that originated from Huntley Chemicals in the early 1980s are still essentially those offered by current manufacturers. On the other hand, waterborne polyurethanes have continued on the technological advance continuum with significant improvements noted in the past decade.

With today's 100% polyurethane waterbornes we are seeing durability performance match and even surpass some of the more toxic solventborne polyurethane technologies.

What is surprising to many is that we are far from seeing the waterborne and low toxicity technology reach maturity. Major advances will occur, culminating in the 'holy grail' of single coat 100% solids systems.

So what makes polyurethanes special? There are many

Solventborne floor coatings chemistry and properties

types of polymers, PVC, polyester, epoxy, acrylic, olefin, to name a few, yet polyurethane comprises 98% of the on-site applied coatings, whether it be suspended in water (waterborne) or dissolved in solvent (solventborne).

Polyurethane has a special set of properties that no other polymer has. These characteristics are exactly what are required for a performance coating.

- abrasion or wear resistance
- adhesion to other surfaces
- flexibility
- resistance to oxidation
- clarity of films

Waterborne Floor Coatings

Unlike 15 year old solventborne technologies where no real innovation can be expected into the future, waterborne timber floor coatings have gone through a technological growth phase that will continue to advance further over the next 20 years.

100% polyurethane resin waterbornes have caught up to solventborne for wear resistance which until recently was the main weakness of waterbornes.

Coating Type	Chemistry	Key Features
Oil alkyds	Long chain oils such as tung, soy, castor or alkyds. Air cured.	Very flexible. Darken significantly with age. Low wear resistance. Moderate toxicity.
Oil modified polyurethanes	Long chain oil with urethane grafted into it. Air cured. Oil content up to 60%.	The higher the oil content the more flexible and the lower the wear resistance. Darkens significantly with age. Moderate toxicity.
Solventborne polyurethanes	Moisture Cure Polyols and isocyanates in a solvent medium are pre-reached up to 95%. Reaction is completed by reaction with water in air. Isocyanate can be yellowing type (aromatic) or non-yellowing (aliphatic).	One pack product. Excellent wear resistance. High adhesive strength. High toxicity.
	Two Pack Reaction of two components of polyol and isocyanate takes place after mixing and applying onto the floors.	Two pack: Excellent wear resistance. High adhesive strength. High toxicity.

Current Waterborne Polyurethane advancements

Toxicity driven

Due to consumer and trade concerns about toxicity, waterborne polyurethane market share is rapidly growing. It currently constitutes around 25% of the total market.

The recent Queensland government monitoring report showed the following key toxicity findings

- Levels of TDI (Toluene Diisocyanate – a class 2 carcinogen and powerful asthma Sensitiser) above the safety limit are being inhaled by floor sanders. It is important to remember that cartridge respirators do NOT remove TDI.
- ZERO airborne isocyanates were confirmed for even two pack waterborne polyurethanes.

Orica is committed to healthier coatings with three full time R&D coatings chemists working on reducing toxicity. The company's R&D department also liaises with international coatings technology centres to keep abreast of international innovation and advances.

Performance driven

Today's 100% polyurethane resin waterbornes such as Toby Commercial, Enviropro Endure and others, match the wear resistance of solventborne polyurethanes. This is confirmed

by independent European testing.

All timber manufacturers are now emphasising 'no solventborne polyurethanes on any new timber installation' (even direct stick), due to the higher edge gluing effect. This is now a major driving force for waterborne market penetration. With major contractors fully understanding duty of care, taking the low risk option that the new generation non-toxic high performance waterbornes offers, together with equivalent wearing performance, makes choosing a waterborne polyurethane finish an easy decision.

More recently the first industry AS4586 R10 rating coating has been released as Toby Commercial Non-Slip Waterborne Polyurethane. This is finding fast acceptance in restaurants, department stores and other commercial premises where intermittent wet floors may occur.

Over the next year you will see the bar lifted by both imported and local waterbornes and with Orica's significant R&D resources we can confidently say that Australian technology will be at world class standards.

Our next article will introduce you to the major breakthroughs that are to be expected in the near future. *f*

Technical Expertise provided by T.A.M.S.A International

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- *Sanding Products*
- *Polyurethanes / Coatings*
- *Tools and Machinery*



Product snap shots

Pownail® Model 50M

The Model 50M is a manual nailer designed to bring Pownail® quality and reliability when installing thinner 10mm to 16mm Solid Tongue and Groove Hardwood flooring including the denser Australian hardwoods. The use of 18 gauge Powercleats® provides a strong and durable Powercleat® necessary to penetrate these densities and provide a reliable bond to the underlayment. The Model 50M is designed to use cleat lengths of 25mm, 32mm, 38mm, and 44mm. For more details on the full pownail range or to find a local distributor visit pownail.com.au or email info@pownail.com.au



Selleys Liquid Nails Direct Stick LF

The new Selleys Liquid Nails Direct Stick LF (low foaming) timber flooring adhesive is ideal for parquetry.

It is low foaming, is VOC free with a low odour and has immediate grab, allowing tight laying of blocks. It comes in a robust foil packaging that reduces wastage.

It also features a non drip consistency, making it easy to trowel, and has very high modulus and strength, allowing for easier sanding.

The product is extremely fast curing and can be walked on in three hours and sanded the next day.

In addition to parquet, Direct Stick LF is also suitable for strip flooring on smooth level surfaces. Direct Stick LF is designed to adhere most types of wood, parquet, strip and sheet timber flooring systems to concrete, timber and composite substrates.



Woodwise full-trowel filler

Woodwise full-trowel filler is a thinner formula than normal putties, and is designed to spread across the surface of the wood floor.

It requires no onsite mixing, just pour a workable puddle and trowel the floor, going back and forth across the cracks and voids to ensure deep penetration and remove excess filler as you go.

Coverage is excellent with one 3.76 litre container will

fill between 80 and 100m². It is available in 13.1 litre and 3.7 litre containers, in 16 colours. For further details contact Boral Timber Tradezone on 03 9790 1790.



For those doing extra Hard Yakka



Hard Yakka Legends® Workwear is made of heavy duty 100% cotton Duck Weave reinforced with abrasion resistant Cordura®, which means the fabric is twice as durable as regular workwear. And because they're made for those doing extra Hard Yakka, Hard Yakka Legends® overalls and trousers are also packed with extra features such as removable knee pads, extra pockets for a mobile phone, tools, pencils and all those gadgets you need on the job - perfect for flooring contractors. For further details visit www.yakka.com.au.

Powernail

Over half a century of being at the forefront of the hardwood flooring industry

Formed in 1946, by brothers Carl and Ed Anstett, Powernail specialises in high quality flooring nailers that are now used all over the world.

The brothers also developed the "L" cleat Powernail and the 45 Powernailer, which with some modifications since the initial design, is still the most popular gun used in the US timber flooring industry.


Today, Dave and Tom Anstett, the company's second generation owners, have taken the lead in producing quality Powernail tools and nails.

"During our 50 years of operation, quality and durability have been the trademarks of Powernail," says Tom. "We plan to continue our tradition of high quality, industry driven tools well into the future."



Pictured here, Powernail's Chicago manufacturing facility.
Above: Owners David and Tom Anstett.
Below: The range of manual nailers developed by Powernail

At the heart of any nailing system is the nail. And while many nails may look similar, there are differences in quality that can mean the difference between a successful installation or one plagued with problems. Powercleat nails are made from high quality US steel so they do not bend while being driven into hard timber flooring. They are made with a well formed set of barbs along each nail, providing the ultimate holding power. The design of the Powercleat also aids in driving them into hard Australian species, which helps eliminate split tongues in your flooring.

Still manufactured just outside Chicago in the USA, Powernail products are available throughout Australia. For more information on the range and to find your local distributor visit Powernail online at www.powernail.com.au. 



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Troubleshooting: peaking

David Hayward, ATFA Technical Manager, discusses what causes peaking in timber floors, how to identify it and whether anything can be done to fix it.

It is important to recognise how peaking differs from cupping, as in many instances the two can look similar.

Cupping in boards can be present in the manufactured product or it can, for example, be the result of moisture beneath the floor. The common feature here is that cupping is brought about by an uneven distribution in moisture that has caused one face of the board to move (swell or shrink) more than the other. This difference in movement causes the cupped shape. In the first case it relates to differences in moisture content through the board and drying stresses at the time of machining and in the second case to moisture being absorbed into the bottom of the boards.

In the case of peaking, although it may have the appearance of a floor that has become wet from beneath and cupped, the moisture content in the lower surface of the board is not significantly higher.

What to look for

There are two aspects that are distinctive about peaking. Firstly, the floor has expanded to some degree after installation, but often not excessively. Secondly the profile is such that when the floor expands all the pressure occurs in the top shoulders of the boards. The forces involved are enough to create the appearance of cupping in the floor. However there is generally no gapping at board edges and reduction in the

width of any intermediate expansion joints is present. Moisture meters will not indicate abnormally high readings that could be associated with moisture uptake from beneath the floor.

What causes it?

There can be a number of issues contributing to peaking and the following factors have to be considered. Firstly, some board profiles are more prone to peaking than others. Those with greater undercut will be more prone to peaking (bottom cover width narrower than the top cover width by more than 0.4 mm). Secondly, is the floor expected to experience moderate to high expansion after installation? Here, it must be considered how close the average moisture content of the supplied timber is to the expected average in-service moisture content. If the floor is likely to expand because of locality (high humidity location), site of the house (bushy gully) or flooring supplied at low moisture content (particularly with some imported material) then there will be a greater risk of peaking.

Peaking occurs in products manufactured in Australia and overseas and also in related flooring products such as bamboo.

What can be done?

As with a number of flooring issues, subsequent problems can often be avoided with proper assessment prior to the laying of the floor.

Know the flooring you intend to lay and ensure that you assess its moisture content and profile in terms of undercut. Similarly, assess where the floor is to be laid and the locality. By doing so the level of risk can be assessed. With many floors the

risk will be minimal. Most internal conditions mean that, if anything, you would expect the floor to shrink after installation. Gaps that develop in these floors close to some extent during moist times of the year but do not place the floor under significant expansion pressure. This includes floors laid in drier climates where the internal environment during the moist time of the year is modified by heating or cooling systems that dry the air and upstairs floors that generally remain a little drier than lower storey floors. Where the risk of peaking is greater it is important to consider acclimatisation and intermediate expansion allowance, to account for the conditions that will induce expansion.

If a floor has peaked, the highest success rate has been achieved by re-sanding and polishing. Unlike situations where a floor has cupped and re-sanding can lead to crowning, this approach will invariably result in a floor that remains flatter. *f*



It is important to recognise how peaking differs from cupping, as in many instances the two can look similar.

ATFA calendar

29 January - 1 February 2008
Surfaces, Las Vegas, USA

February 2008
Problems, Cures and Remedial Measures Workshop
Hobart 4 Feb • Melbourne 5 Feb • Sydney 6 Feb
Brisbane 12 Feb • Adelaide 19 Feb • Perth 21 Feb

11 - 13 March 2008
Domotex Asia/Chinafloor - Shanghai

25 - 28 March 2008
National Wood Flooring Association 2008 Conference
Fort Lauderdale, Florida, USA

8 - 9 May 2008
West Australian ATFA Exhibition

9 - 10 October 2008
ATFA Conference and Convention, Melbourne

Ask the experts

Is there any hard and fast rule about when I should change sanding papers? I usually use them until they tear. BS

Yes. The manufacturer, quality and material used to make the paper will all have an impact on how long the sand paper will last. Abrasive manufacturers give a "life" on their products that you should be aware of.

Believe it or not, sandpaper is not made of sand. It is made of mineral and the mineral sharpness is what actually cuts the timber. Different quality and styles of mineral will wear differently and as they get beyond

their life start to cause problems. Unfortunately, there is no easy way to tell when papers (or screens) are past their use-by date and many floor sanding contractors use them well after they should.

You may be surprised to know that most manufacturers recommend only from 50 to 100m² for their product to cut properly, depending on the type and quality of mineral.

So check with your sanding supplier on how much they suggest you should get out of each paper and try it on just one job to see if you can see the difference. DW *f*

websites

www.timber.net.au

The Timber Development Association website covers everything about Australian hardwoods and softwoods. The site profiles timber species, covers bushfire regulations and provides many technical guides.



www.NOFMA.com

The US website of the National Oak Flooring Manufacture Association has 50+ publications for free download.

www.tastimber.tas.gov.au

This site is a guide to a large number of species from Tasmania. It also covers sustainability, forest management and profiles of flooring projects using Tasmanian timber.



Boral Timber's Silkwood Royal Range promotion in September and October included a \$20,000 lucky draw cash prize with an additional \$5000 prize for the Boral customer who sold the product to the winner. The Silkwood Royal Range includes Brushbox, Jarrah, Tallowood, Red Mahogany and Karri. The lucky \$20,000 winner was Brent Robertson from Tallebudgera, Queensland. Queensland Timber Flooring was the supplier that sold the Silkwood to Brent, winning \$5,000 for their efforts. Congratulations!

Stay tuned for the Mountain Range promotion finishing in January.

Project feature: Mount Stromlo Observatory, Canberra

ATFA member Floors by Powell won Floor of the Year in the Commercial, Site Installed category with this feature floor at the Mount Stromlo Observatory in Canberra.

On 18 January 2003 a raging firestorm destroyed the observatory, destroying five telescopes, workshops, seven homes and the heritage listed administration building. Most of the internal walls were destroyed leaving the external brick skin of the building.

In December 2006 the huge task of rebuilding began. In keeping with the original character of this historical building the architects chose a select grade Messmate for the floor. Inserts of re-milled Turpentine flooring sourced from Pymont Wharf were included to represent the walls of the original building.

"The challenge with this floor was to make sure all the floor levels flowed from one room to another, perfectly meeting the existing fireplaces," says floor layer Dean Thompson from Floors by Powell.

The next stage involved completely rebuilding the common room. The design of this building was in contrast to the original building. Instead of small rooms that characterised the original design, the new design is light and open, featuring a large wall of glass looking over the landscape of the Brindabella Mountain Range.

The flooring in both the reception and common room was installed over a concrete subfloor, following the fitting of a plastic membrane as an extra moisture barrier.

Kiln-dried battens were pinned to the concrete with galvanised steel spikes, and a structural sheet was glued and nailed over the battens using Bostik Ultraset.

The Messmate boards were secret nailed and fully adhered to the sheet flooring. This floor was finished using a non-toxic, non-yellowing water-based polyurethane.

The final stage of this project involved the construction of the beautiful timber staircase, which was created using the same material as the timber floors; solid Messmate.

"The challenge with this staircase was that each tread was different in size and had to be cut neatly to the steel stringer and glass handrail," explains Dean.



Project profile

Supplier and installer: Floors by Powell
phone 0412 486 497

Flooring producer: Custom Timber Industries

Finish: Bona Traffic

Adhesive: Bostik Ultraset



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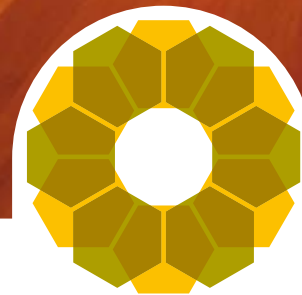
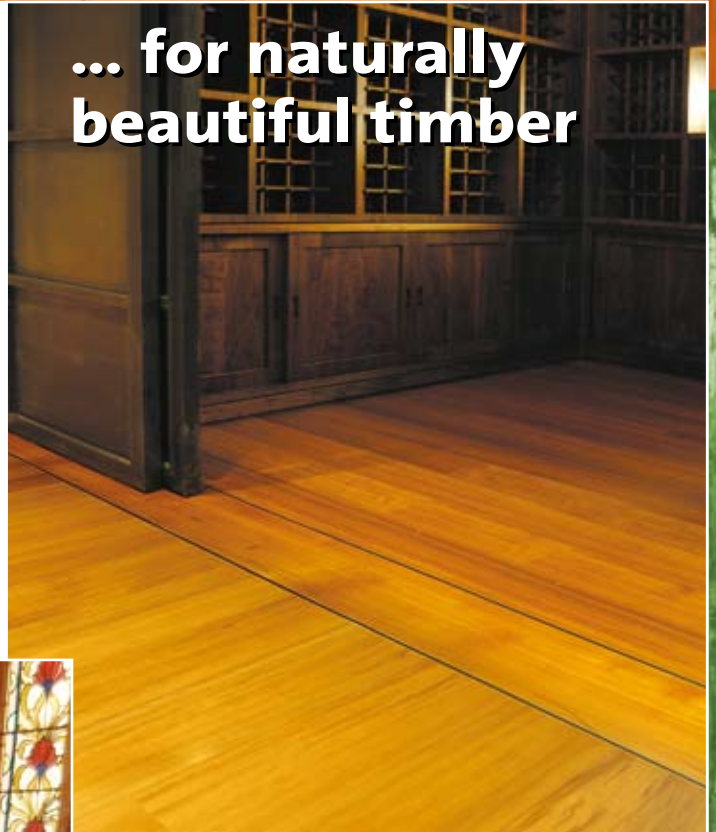
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