

PQI Counterpoint

INFORMATION ABOUT SELLING QUALITY PAINT TODAY

ISSUE 1/2002 >>

NEW COLOUR DIRECTIONS

QUALITY SELLS

SELLING PAINT IN CHINA

ASIA PACIFIC ISSUE



Want paint advice? Employ a mouse.

PQI

- Information
- Education
- Promotion



When you need to answer questions about paint, just click on www.paintquality.com

It's like having another person in the paint department who can:

- answer hundreds of paint questions
- explain the key steps to a successful paint job
- recommend the correct primer and finish coats
- show your customer how a colour scheme will look
- solve common paint problems
- calculate the cost of a paint job
- give marketing tips to increase traffic

Best of all, your new assistant delivers objective, accurate and generic answers about paint and painting based on extensive research by the Rohm and Haas Paint Quality Institute.

So next time you need to know about paint, put a mouse to work.

www.paintquality.com



CONTENTS

03	04	06	08	11	14	16	19
Editor's column WELCOME TO PQI COUNTERPOINT.	Putting quality on the agenda HOW PQI HELPS PAINT RETAILERS.	Quality sells WHY SELLING QUALITY IS A WINNER.	Go for gold...new directions in colour WHAT'S GOING TO BE HOT IN 2002.	For timber, the answer is clear BOOST YOUR KNOWLEDGE ABOUT CLEAR COATINGS.	Fresh coat fresh air WHY GOING LOW - ODOUR AND VOC - SELLS.	Retailing quality coatings in China CHINA IS EMBRACING DIY...OR IS IT?	Questions and answers TEN QUESTIONS CUSTOMERS ARE LIKELY TO ASK.



WELCOME TO PQI COUNTERPOINT

Welcome to the first issue of PQI CounterPoint, the magazine of the Paint Quality Institute in the Asia Pacific Region. The Paint Quality Institute (PQI) was started in 1989 by Rohm and Haas, one of the world's leading specialty chemical companies and a major supplier to the coatings industry.



In keeping with the Rohm and Haas commitment to quietly improving the quality of life, PQI is an organisation devoted to promoting the benefits of quality paint and painting throughout the world. Our new magazine, PQI CounterPoint is the latest PQI initiative designed to support paint retailers in the marketing and sale of quality paint to end users.

PQI CounterPoint provides a forum for paint and painting issues in the Asia Pacific region, and offers a medium to convey information about technology, retailing and marketing to those who earn a living from selling paint.

In this issue we explain:

- How to keep one step ahead of your customers by accessing information provided by PQI;
- Why selling quality paints pays off in the long run;
- Why there's a trend to using low VOC and low odour paints;
- What colours are going to be hot in 2002;
- The trend towards clear coatings to highlight the appearance of timber; and
- How the face of paint retailing is changing in China.

It is an exciting time in the Asia Pacific region with many growth opportunities for everyone involved in paint and painting.

We hope that you will find PQI CounterPoint useful as an independent forum for disseminating information and promoting discussion that will lead to the highest standards of quality.

MICHAEL BERESFORD

Manager Paint Quality Institute
Asia Pacific Region



<p>Editor MICHAEL BERESFORD Deputy Editor STEPHEN BORRIE Production IDEA COMMUNICATIONS Published by ROHM AND HAAS PAINT QUALITY INSTITUTE</p>	<p>Cover Choosing colour is difficult for your customers. Kim Chadwick tells us about new directions in colour trends. See page 8.</p> <p>Contacts Email ask_pqi@rohmmaas.com Mail Rohm and Haas Paint Quality Institute PO Box 115 Camberwell Victoria 3124 Australia</p> <p>Material Submitted While every care is taken with solicited and unsolicited manuscripts and materials supplied for consideration and/or publication, neither the editors nor the publishers accept any liability for loss or damage which may arise, however caused.</p>
<p>Copyright This publication is copyright. No part of it may be reproduced, stored in a retrieval system or transmitted in any form by any means, including electronic, mechanical, photocopying, recording or otherwise, without the prior written permission of the Rohm and Haas Paint Quality Institute. PQI, THE ROHM AND HAAS PAINT QUALITY INSTITUTE and the stylised 'Q' device are trademarks registered in Australia and owned by Rohm and Haas Company.</p>	



FAR LEFT:
PICTURE COURTESY OF RESENE PAINTS
CENTRE:
ARCHITECT IVAN RIJAVEC
PHOTOGRAPHER TIM GRIFFITH
LEFT:
PICTURE COURTESY OF RESENE PAINTS



PUTTING quality

ON THE agenda

“All paints are not equal.”

That’s the simple message from the Rohm & Haas Paint Quality Institute, an organisation that has grown rapidly since it was first formed in 1989 to take up the battle against the treatment of paint as a commodity.

Paint Quality Institute (PQI) is an initiative of Rohm and Haas, one of the world’s leading specialty chemical companies and a major supplier to the coatings industry.

Rohm and Haas started the Institute because the company wanted to support their customers in demonstrating the real value of high quality products.

Starting from its USA base a decade ago, today PQI operates globally taking the message about quality paint and painting to North America, South America, Europe and the Asia Pacific regions.

Through a range of activities, PQI promotes the advantages of using top quality paints and application methods over inferior products to the people who manufacture, market, sell and apply paint.

The four key roles of PQI are to:

- Inform industry and the public

about the benefits of quality paint and painting;

- Encourage the use of quality paint;
- Provide training to help paint buyers and users make educated choices; and
- Be an independent source of generic information about paint and painting.

According to Michael Beresford, Manager Paint Quality Institute – Asia Pacific Region, an important PQI function is to grow the total market for architectural paint.

“Our aim is to grow the quality paint market in the Asia Pacific Region (APR) by sharing our global expertise about paint,” he said.

“Through education, training and promotion, we are bringing home the message that quality paints provide the highest levels of value and customer satisfaction over time.”

“When people understand the benefits, it is easier to sell quality paint.”

Challenges to understanding include the differences between countries and regions. Differences in culture, language, building materials, distribution



channels and levels of development are all a challenge.

Yet, the value of PQI literature, training programs, sales aids and promotional materials seems to transcend national and cultural boundaries.

A highlight of the program is our website www.paintquality.com. Operating for just on two years, the website receives more than one million hits a month and provides information specifically for paint department staff.

Other PQI collateral includes magazines like this, newsletters and advertisements, publicity, conferences and seminars.

A large number of paint department staff have earned their stripes and developed confidence in their knowledge about paint and application methods by attending one of our training courses.

We also conduct market research with consumers and industry to better understand the markets we are working in

and provide valuable insights that help in the retailer/customer relationship.

PQI is in its infancy in the Asia Pacific Region but there are plans for rapid growth.

“Our plan is to grow the program along regional lines that recognise the special needs of people in APR,” said Michael.

“While our initial focus is on Australia, New Zealand and China, we envisage becoming more and more involved with other countries in the region in the very near future.”

In the meantime, PQI is on the move in APR.

Already, www.paintquality.com has been upgraded and an Australian and New Zealand section can be accessed directly from the home page. Direct access to a Chinese section will be available in the near future.

Features of www.paintquality.com include:

- a paint problem solver;
- a step by step guide to surface

preparation, tools, paint choices and painting conditions;

- a full glossary of painting terms;
- tips and instructions for special decorating techniques;
- a cost calculator;
- reports on the latest technology; and
- frequently asked questions.

Training programs have been designed and presented to manufacturers in New Zealand and retailers in Australia, and seminars have been held for paint specifiers, architects and designers, in China.

Publications and newsletters have been produced and distributed, including a regular newsletter in China and the launch of PQI CounterPoint magazine specifically for the region.

For people involved in marketing paint in the region, PQI provides the answers to the questions customers ask and enables you to refute once and for all that all paints are equal!



Quality sells

It may seem relatively easy to sell a can of ordinary or average quality paint.

Your customer is happy because he or she has saved a few dollars over buying a more expensive can of paint and you're happy because you have achieved a quick sale.

But is it really that easy? If you believe in building repeat business by providing a quality service then isn't recommending an inferior paint product going to undermine your relationship with your customer?

Just as you pride yourself on providing better service than another similar business, all paints aren't the same!

Ordinary paints can be cheaper because they have inferior ingredients, are not as easy to apply and don't adhere as well or last as long as top quality paints.

In fact, at the Rohm & Haas Paint Quality Institute, we argue that advising your customer to invest a little more for a top quality can of paint pays off in the long run, both for your customer and you.

A SOUND INVESTMENT

By spending a little more, your customer will invest in a product that:

- Goes on more smoothly
- Has better coverage and hiding
- Lasts significantly longer
- Saves time and money with less repainting required.
- Requires less preparation time when your customer has to finally repaint.

Of course, there are times when a cheaper paint may be justified if all your customer wants is a short term result. But, in most cases, they want the job to last as long as possible and the economics are strongly in favour of quality.

A top quality water based acrylic paint can last up to twice as long as a lower quality water based paint (in some countries this gap can be even greater) so, unless your customer enjoys climbing ladders and applying paint, this thought alone is enough to put them off the cheaper product.

If they are using a tradesperson, you can show them how

to almost halve the cost of their paint job.

HALVE THE COST

Just remind them that the cost of paint is typically between 15 and 20 percent of the total cost of the job – yet, the better quality paint may double the life of the job!

As you can see from the chart, investing in paint that, typically, costs around 30-40 percent more than a cheaper product can actually cut the total cost by about 50 percent over the life of the job.

So, why does top quality paint cost a little more than ordinary paint?

The answer lies in the ingredients. Better quality binders, pigments and additives make a real difference to the way the paint goes on, how it covers the substrate and how long it lasts.

BOUND FOR LONGER LIFE

Of these components, the binder has the greatest impact on durability. The type and quality of the binder affects everything in the

paint, from stain resistance and gloss to adhesion and crack resistance.

Water based binder types include pure 100 percent acrylic or copolymers such as styrene acrylic and vinyl acrylic. In oil paints the binders include drying oils such as linseed or soya, or some modified oils, known as alkyds.

Generally speaking, 100 percent acrylic water based paints have better exterior durability – better colour retention and resistance to chalking and cracking than oil or alkyd based paints.

Quality water based paints with 100 percent acrylic binders are especially durable, adhering well to a variety of substrates, including fresh masonry and resisting blistering. Other binder types can lead to colour loss and film deterioration on fresh masonry.

The way paints form their protective films is also a factor in performance.

When oil based paint is applied to a surface, the liquid which carries the solids to the surface, mineral turpentine, evaporates to leave behind the pigment and the binder which oxidises and hardens to form a hard, tough film.

Unfortunately, this hardening keeps on occurring over time and can cause yellowing and brittleness. When the surface to which it has been applied expands and contracts, the paint film is likely to crack and flake.

FLEXIBILITY THE KEY

On the other hand, as the water in water based paints evaporates, the binder fuses to form a continuous, flexible film.

Compared with oil based or alkyd paints, sunlight is slower to break down the binders in quality 100 percent acrylic paints which maintain colour better over time.

But the critical benefit is that

quality acrylic paints are more flexible, expanding or contracting with the surfaces to which they are applied as the temperature rises and falls.

The quality and type of pigment used is another factor that influences paint quality.

PIGMENTS IN THEIR PRIME

Prime pigments provide colour and opacity or hiding power, the most common being titanium dioxide which is used in

both water based and oil based paints.

Extender pigments provide bulk to paint and contribute to properties such as scrub, stain and chalk resistance but contribute relatively little to colour and hiding power.

High quality paints typically contain higher levels of prime pigments than lower quality paints and are less reliant on extender pigments for hiding power. They are more chalk resistant and provide better colour retention and durability.

And while all paints will fade eventually, the rate of fading is lower with better quality paints.

ADDITIVES ENHANCE

Top quality paints are also likely to contain additives that enhance their performance.

Typical additives include rheology modifiers to give a better film build by improving flow and levelling, chemicals to resist mildew, dispersing agents for even distribution of pigment, preservatives and anti foaming agents.

Another ingredient that sets top quality paints apart is solids content.

MORE SOLIDS

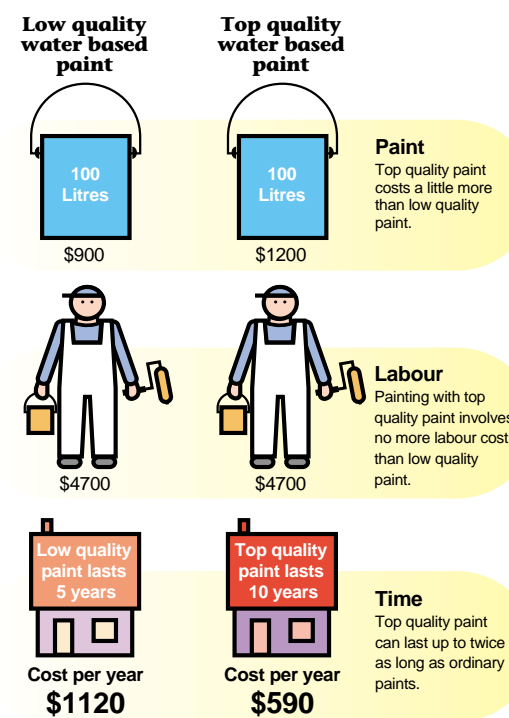
Typically, top quality paints contain a greater proportion of binder and pigment and less liquid than ordinary paints.

That means the top quality paint gives a better result because, as the water evaporates, it dries to a thicker, more protective film.

And ultimately, isn't that the result your customer is looking for – a good looking job that protects the surface for longer and costs less over time.

For more information about quality paint and painting, visit our website www.paintquality.com

Quality means value For exterior painting



Quality paint is a better investment
Regardless of whether you use a professional painter or do it yourself, it makes sense to invest in top quality water based paint because it lasts much longer than ordinary paint and costs less over the project lifetime.



FAR LEFT:
ARCHITECT COTTEE PARKER ARCHITECTS
PHOTOGRAPHER CARL BERGGREN
CENTRE:
ARCHITECT ARCHITECT MARSHALL PTY LTD
PHOTOGRAPHER BRETT BOARDMAN
LEFT:
ARCHITECT BUD BRANNIGAN ARCHITECT
PHOTOGRAPHER DAVID SANDISON

Stunning examples
of the practical use
of colour



Kim Chadwick

Go for gold new directions in colour

Choosing the right colour is one of the most difficult exercises for your customers...and you!

Computerised colour visualisers and colour matching systems are great when your customers have some idea of the colour schemes they think might suit their home or office.

But, unless you have a reliable crystal ball on hand, these technologies don't help when your customer asks what's going to be the hottest colour in bathrooms next year!

Forecasting colour trends is difficult...and fraught with danger

if you get it wrong. But your customers expect you to know, so we've taken a look at the future to try and help you negotiate this tricky area of expertise.

The Duha Group, an international supplier of colour ideas, advice, systems, chips and colour cards used in selecting paint colours is heavily involved in monitoring and predicting trends.

Sarah Fisher, Marketing Manager for the Duha Group, is a member of the USA-based Colour Marketing Group (CMG) and keeps abreast of colour for her clients in the paint, pharmaceutical and cosmetics industries.

Sarah is a regular participant in CMG's consumer workshops where

experts from a variety of industries concerned with colour try and plot what is going to appeal in the future.

She is also a member and Duha a sponsor of Colourways, a leading Australian and New Zealand colour forecasting group which brings together designers, marketers and manufacturers from almost every business touched by colour.

In Australia, Duha often refers clients to Kim Chadwick, a designer with the Melbourne-based Blend Colour Marketing and Design, for help with colour selection, design and layout of colour collateral.

Kim has been closely involved in the annual Colourways Australia colour-forecasting workshops that review colours being specified by members across a broad range of industries.

She helped analyse the material and prepare colour trend forecasts for 2002.

The forecasts, which are published in a fandeck, include samples of colours, materials, special finishes and effects, together with a summary of colour and design directions and the factors that influence these trends.

"These forecasts are an invaluable tool for the design, development and marketing of competitive products and services" says Kathy Demos, Director of Colourways.

COLOURS VARY EACH YEAR

"It never ceases to amaze me just how different colour palettes can be from year to year," said Kim.

"The range of colours that we will see specified this year have evolved from the past but are distinctively different with a focus on more organic colours that are complex and often include a texture."

"Each colour is open to interpretation and may be used in different proportions, different strengths and in different textures and materials."

So what's going to be hot in 2002?

GOLD THE COLOUR FOR 2002

According to Kim, gold is overwhelmingly the colour choice for 2002 and will influence many other colours from greens to reds.

Of course, gold comes in many shades. Kim believes that the pearlescent and metallic finishes that have been in abundance in recent years will be influenced by a pale, greenish gold.

She believes this pale gold pearl will be overlaid on many colours to create different effects and depth of colour. It will also be used as a trim or highlight colour in homewares and fashion.

Timber is emerging as the material for cladding, screens, shutters and garage doors. Cedar's golden orange hue makes it the timber for this year, according to Kim.

SEEING RED

Colours reflect the way we see ourselves and red, a colour that can express warmth and confidence, is also tipped to be popular during 2002.

Red gives strength and adds an intensity to orange. When mixed in abundance with pink and a touch of yellow, it creates a watermelon colour that can be used as an accessory colour for interiors.

Aubergine also continues as a strong trend for building exteriors

and feature walls. It is a fashionable dark neutral and probably will replace brown. Other dark neutrals include charcoal and a blackened khaki.

These colours will be used together with materials with inherent colour such as concrete, stone, copper and zinc.

Leather and suede will continue to influence fashion, furnishings and wall finishes, and denim is making a comeback in fashion, which in turn will influence homewares and paint colours. The texture of these materials will be sought in paint effects.

INTERIORS FEATURE

Interior feature walls continue to be very popular as they allow people to be adventurous with colour.

Feature walls become as dynamic as artwork or a new piece of furniture and can transform rooms each season. A good combination for bold colours in the home include a yellowed green mixed with either deep denim blue or a deep seductive red.

(continued next page)





ARCHITECT
CONNOR + SOLOMON ARCHITECTS
PHOTOGRAPHER
KEN BRASS



Kim Chadwick
BLEND COLOUR MARKETING & DESIGN

+ 61 3 9593 9322
+ 61 3 9593 9329
kim@blendcmd.com.au

Blend assists manufacturers in interpreting market trends and consumer preferences into their products through colour, design and communication materials.

Sarah Fisher
THE DUHA GROUP

PO Box 440 Beaconsfield
Victoria 3807 Australia
+61 3 9769 7220
+61 3 9769 7660
sfisher@duhagroup.com

COLOURWAYS AUSTRALIA & NEW ZEALAND

Colourways is a colour-forecasting group that produces an annual colour and design forecast and conducts a comprehensive workshop and seminar program for its members.

For membership enquiries and information on obtaining the year 2002 and 2003 fandecks, please contact:

PO Box 21 Flinders Lane Victoria 8009
+61 3 9654 6335
+61 3 9654 6430
demos@interdomain.net.au

SOFTER PASTELS

Metallics continue to be a major influence but have softened in colour and texture. Pearlescent effects are also likely to be more subtle and glow rather than glitter.

“The desire for softer, more feminine finishes will influence the colours we will see this year,” said Kim.

“We are likely to see a range of softer pastels such as pale citrus, white green and lavender colours that are cheery and light hearted.

When used with whitened mid tones, these colours set the palette for a very feminine and romantic trend. Floral prints, painted wrought iron, lace and layers all contribute to this look”.

ARCHITECTURAL FINISHES

Of course, colours and materials go hand in hand. More and more architectural uses are being found for glass including as building

cladding, in sinks, basins, walls, partitions, wall and floor tiles.

Imagery is increasingly being used to add yet another dimension to surfaces. For example, people are experimenting with the inclusion of large, computer generated images embedded in glass external walls.

Metal and metal finishes are also in favour, often combined with glass, plastic, render and timber, and used as external cladding for buildings.



ARCHITECT
COTTEE PARKER ARCHITECTS
PHOTOGRAPHER
CARL BERGGREN

For timber, the answer is

clear



As more and more people discover the natural beauty of timber, an increasing number are asking for information about how they can protect and beautify their choice of timber.

In most cases, while the answer is to use a clear coating, the range of coatings available and their use in everything from furniture to fishing boats is confusing.

What are the differences between varnish, polyurethane, lacquer and shellac? When do you use a solvent based clear rather than a water based coating? How do you apply clears?

To put the answers at your fingertips next time a customer asks, we've prepared some basic tips about the range of clear coatings available, the variety of applications and how to apply them.

SEE THROUGH THE DIFFERENCE

Clear coatings aren't paints, the prime difference being that while paints contain pigments, clear coatings have none, or almost none.

Because they contain little or no pigment, clear coatings form a film that is transparent and permits the substrate...often bare or painted wood...to be seen through the coating.

Otherwise the ingredients in

paints and clear coatings are identical: binder, additives and a liquid carrier.

Clears are available in water based and solvent based formulations, a range of sheen levels and all afford a degree of protection to the substrate.

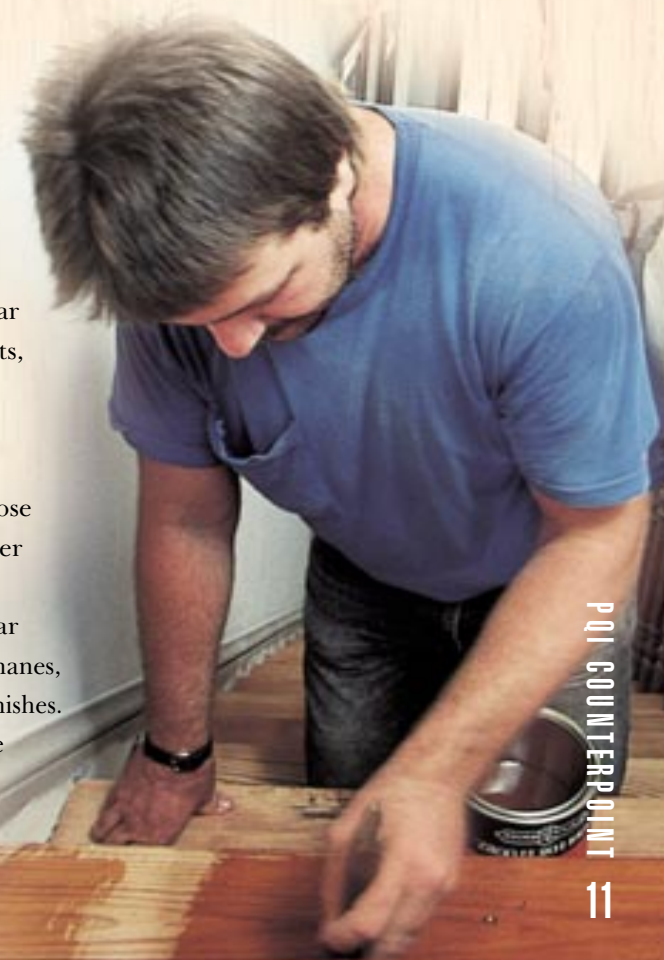
THE INSIDE STORY ON TIMBER

Clear coatings are most commonly used for interior applications over bare or stained timber surfaces, or over a previously applied clear coating, for furniture, cabinets, doors, windows, trim, floors and counter tops.

There is a wide range of interior clear coatings to choose from in both solvent and water based formulations.

Solvent based interior clear coatings include oils, polyurethanes, lacquers, shellac and alkyd varnishes.

Water based varnishes are also available in acrylic, modified acrylic, urethane acrylic and 100 percent urethane binders.



For timber, the answer is clear



With this wide product range and their different requirements for surface preparation and product application, it is important that you always advise your customers to check the manufacturer's recommendations on the can!

Natural oil interior clears

Natural oil finishes are made with vegetable oils – usually linseed or tung oil – that penetrate the timber when applied and dry or oxidise when exposed to the air.

They are generally applied by brush or rag, then allowed to dry for a short period before the excess is removed with a clean cloth. Application of two or more coats produces a rich, satin finish.

Generally, they should be allowed to dry for several hours between coats.

While they produce an attractive finish, your customers should not use natural oil finishes for heavy traffic areas such as floors, or expose them to water or alcohol such as on bar tops or coffee tables.

Solvent based alkyd and polyurethane varnishes

These are among the most versatile of the clear coatings.

An alkyd is a drying oil that is modified to dry faster and harder than the straight oil. Polyurethane clear' is usually an alkyd that is modified for maximum toughness and abrasion resistance.

Commonly used for floors, steps, trim and furniture, these products come in matt, semi gloss and gloss finishes and sometimes include a stain to eliminate the separate staining process.

Unlike James Bond's martini, these products must be stirred gently, never shaken. Shaking will create bubbles in the coating that may leave small rings or craters on the surface after it has been applied.

Both alkyds and polyurethanes are best applied with a high quality natural bristle or polyester

brush, applying the coating carefully in one direction only and without excessive brushing.

They can be applied by roller but it should have a short nap to minimise foaming.

Drying time is critical with these products. If it is too short (say, less than a few hours), the second coat will attack the first causing wrinkling and lifting. If it is too long, the second coat may not adhere properly to the first coat.

If the first coat has been allowed to dry for more than 24 hours, light sanding will help the second coat adhere properly.

Shellac

Shellac is an exotic sounding clear with a binder that is made from the secretions of the lac beetle which is harvested in India.

Shellac forms a transparent, glossy film, sometimes with a yellow cast. However, the colour of shellac is stable and it will not yellow over time.

It is excellent for blocking stains but shellac has some limitations.

It should not be used for surfaces subject to alcohol, such as bar tops or dressing tables where perfume may spill, and it will whiten when exposed to water and some other liquids.

Lacquer

Lacquer is a general term used for quick drying, high gloss finishes with excellent clarity.

As lacquers have a low solids content, they usually have to be applied in at least several coats and can be applied by brush and spray.

The most commonly used binder for lacquers is

nitrocellulose although some have solvent based acrylic binders.

If applied over another finish, it is possible the lacquer's relatively aggressive solvents will cause the existing coating to craze and crack.

Fewer lacquers are available today due to more stringent environmental regulations but they are still used extensively by furniture makers in controlled environments.

Water based clears

Significant advances in water based varnish technology have been made in recent years by paint manufacturers.

Water based varnishes are available in various binder technologies including acrylic, modified acrylic, urethane acrylic combinations and water dispersed urethane.

They offer the benefits of water clean up and low odour over solvent based varnishes but are not quite equal in terms of hardness and high gloss finish.

Water based varnishes often have a milky finish during application which helps in applying an even, uniform coat but they dry to a perfectly clear finish.

EXTERIOR COATINGS BATTLE NATURE

Clear coatings provide extra beauty to exterior timber but the level of protection they can provide is limited by the constant battle with ultraviolet radiation (UV) from the sun.

The bare or stained timber of exterior doors, trim, outdoor furniture,

SAFETY TIPS FOR YOUR CUSTOMERS

- Wear eye protection
- Ensure area is well ventilated
- Wear a respirator when using solvent based products
- Be aware of potential fire hazards
- Never pour waste materials down the drain
- Pour waste on to cardboard or paper, dry, then dispose with rubbish



boats and marine equipment is often coated in a clear finish, however, without the protective effect of pigment, exterior clears have a limited life expectancy.

Because of the clarity of clear coatings, UV rays penetrate through to the substrate causing the timber fibres to deteriorate and the coating to lose its adhesion.

Solvent and water based varnishes containing UV absorbers are better able to absorb UV rays but coating life is still short when compared to a painted surface.

To get the best results, it is always wise to recommend that customers apply multiple coats of any exterior clear for better protection and longer coating life.

Solvent based exterior clears

These are usually alkyd or polyurethane products that are similar to interior equivalents but with UV absorber ingredient added.

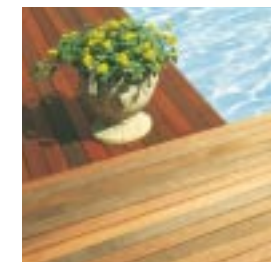
UV absorbers give these products protection against UV rays and added durability while, generally, adding cost to the equivalent interior product.

Spar varnishes

Spar, or marine, varnishes, are made with tung oil and/or an alkyd binder.

Of all clear coatings, generally, they offer the best performance on outdoor furniture, wood planters, boats and marine equipment.

They have a very high gloss and provide excellent resistance to cracking and peeling.





Fresh coat

fresh air

Once the smell of a freshly painted room was a normal sign of an improvement in our surroundings. These days your customers are likely to be concerned about the impact on their health.

In a world where the need to tread lightly on planet earth for our future survival is well recognised, paint manufacturers worldwide have been searching for new products that have the lowest possible impact on our environment.

In recent years, most manufacturers of quality paints have developed both low odour and low VOC paints to counteract growing concerns about clean air.

CLEAN AIR CONCERNS

In the early 1970s, the US Congress and governments in several countries established ambient air quality standards to reduce atmospheric pollution, including smog in urban areas.

When you consider all of the materials involved, you find that emissions from architectural coatings constitute about two percent of the total. The largest contributor to smog formation is exhaust emissions from motor vehicles.

Nevertheless, the paint industry and government agencies have been working for many years to have an orderly and sensible

reduction of the volatile organic compounds (VOCs) in paints.

VOCs are the chemicals used in paint that keep it liquid (ie the solvents) and provide various performance characteristics. As the paint dries, they produce fumes that may cause headaches, nausea and dizziness if breathed in significant amounts.

In combination with other airborne contaminants and ultraviolet light, some VOCs create atmospheric ozone, a potent pollutant that contributes to smog.

Despite the fact that solvent based paints contain the greater concentration of VOCs, this VOC reduction is being done with both solvent and water based paints.

Solvent or oil based paints typically, by volume, contain 40-50 percent solvents (VOCs), primarily mineral spirits or turpentine, while water based paints generally contain less than 10 percent solvents, usually glycol and coalescent, which are much more benign.

SOLVENT SOLUTIONS

In some parts of the world, some solvent based paints have been reformulated to comply with certain stringent local and state regulations, which are

expressed in grams of VOC/litre of paint.

These lower VOC solvent based paints are sometimes referred to as 'solvent compliant' paints.

However, the technology employed can have significant drawbacks (when compared to higher VOC counterparts) such as:

- Reduced durability;
- Softer dried films;
- Thicker paint that is more difficult to apply;
- Longer drying times;
- More rapid yellowing; and
- More expensive products.



Paint manufacturers continue to work on improving the properties of these 'solvent compliant' paints because solvent paints still fill several needs in the paint market.

LOWERING VOCs IN WATER BASED PAINTS

Water based paints have also been subjected to reduced VOC levels and, in general, this has not affected their overall performance.

The current VOC level for water based paints in Australia can range from 5 to 125 grams/litre depending on the type of paint specified. New regulations will reduce some of these target VOC levels even further. In anticipation of this development, the paint industry has been looking at paints that do not require the use of any solvents.

To accomplish this, it has been necessary to develop new binders that not only form a film without the need for a coalescent but also have the resistance

characteristics approaching those of currently available paints.

Paint companies also needed to reformulate these paints to have equivalent wet edge time and, in colder countries freeze/thaw stability, without using glycols.

While the desired feature of these paints – no VOC – was met, an additional benefit realised was the creation of lower odour paints.

LOW ODOUR ADVANTAGES

Everyone accepts the fact that today's water based paints have significantly lower odor than solvent based paints.

However, many people say that water based paints, while lower in initial odor, tend to have a lingering or residual odor.

This has been traced to some of the VOCs, even in very low concentrations contained in many water based paints; however, the newer no-VOC formulations are virtually odour free.

As a result, these paints are suited for use in schools, hospitals, nursing homes, hotels and other institutions where occupant comfort and the economic advantage of reduced downtime are significant benefits.

FUTURE POTENTIAL

The introduction of low VOC and low odour paints has created opportunities for paint retailers.

Where DIYers with asthmatic children or sensitivity to the chemicals and odour of paint fumes may have been hesitant to paint, the new range of paints significantly counters that problem.

For painting contractors, these paints give them an opportunity to obtain work in areas requiring minimal disruption.

For example, painting works can now be carried out in schools, hospitals and hotels with minimal disruption because, without the fumes, rooms can be occupied very soon after the painting has been completed.

These days, low VOC paints enable everyone to take a fresh new look at painting!

VOC LEVELS: Water based vs Solvent based paints

Water based paint (5-125 grams/litre)*	Solvent paint (250-550 grams/litre)*
35% solids	50% solids
60% water	0% water
5% solvent	50% solvent

Water based paint VOC range is 5-125 grams/litre. The solvent paint VOC range is 250-550 grams/litre as specified by current APAS (Australian Paint Approval Scheme) guidelines.

Note: The method of calculation for VOC levels can vary for different countries and regions. In the North American region water is eliminated from VOC calculations, this gives higher VOC levels in water based paints when compared with the VOC levels calculated in the Asia Pacific region. When comparing VOC levels it is important to be aware of variations in the calculation method.



Retailing quality coatings in China

The dragon dancers, fireworks and ceremonial drummers were typically Chinese when the major British homewares chain B&Q opened the largest store ever in China recently to the cheers of 2000 customers.

But the big question is whether the huge new B&Q store in affluent Shanghai highlights a significant shift in the Chinese approach to home improvement and retailing in the world's most populous country.

Twice the size of an average store in Britain, the opening of the 17 000 m² shed is the latest in a string of Chinese and foreign joint ventures that are heading down the path of DIY retailing.

B&Q opened its first store in Shanghai in 1999. If everything goes according to plan, the company will have around 58 stores open across China by 2005-2006.

B&Q is not alone. Other notable entrants to the burgeoning homewares market include OBI China, an offshoot of

the German chain, Orient Home and The Home Way.

They are all trying to capture a share of the rapidly increasing home improvement market which, supported by government initiatives, is seeing home ownership grow by about 30 percent annually.

FROM BIY TO DIY

The move to DIY involves not only a major retail investment but a significant shift in the mindset of the largely upwardly mobile and burgeoning middle classes who aspire to home ownership.

Most apartments are sold as concrete shells requiring a complete fitout.

Chinese customers tend to take a BIY – buy it yourself – approach to completing their home then

employ builders, plumbers and painting contractors to do the work.

For the quality paint market, these changes are challenging the way product is retailed while offering huge potential for the companies that are able to understand what is required and supply it.

The numbers are amazing.

POTENTIAL FOR GROWTH

"Although the population of China is four times larger than the USA, the entire 'paint market' is less than half with the current Chinese exterior market being a mere fraction," said Ian Penboss, Market Development Manager, Rohm and Haas, China.

"But, as with many statistics in China, it is difficult to ascertain

what are the real market conditions and what is truly being defined," added Ian.

Nevertheless, the potential is huge with retailers reporting that they expect the home improvement market to grow from around 171 billion RMB (AUD\$40.83 billion) to 249RMB (AUD\$59.46 billion) by 2005.

With the architectural coating market in China estimated to be more than one million tonnes, exterior decorative coatings contribute around 20-25 percent of the total.

Less than 10 percent of the buildings in China are painted on the exterior, in stark contrast to Western markets where normally 70 percent or more of the buildings have exterior coatings.

Within a few short years it is

not inconceivable that the Chinese coatings market will exceed that of the USA and that a truly competitive exterior market will be developed.

What is driving the changes in China?

HOME OWNERSHIP DRIVING CHANGES

One of the major drivers is the government initiative to move home ownership away from the work unit to the individual.

With personal responsibility for everything from heating bills to painting, individuals are having to learn what coatings are available, how they perform and how they can contribute to their lifestyles.

According to Ian Penboss, home owners are increasingly becoming aware of the value of





quality coatings such as stain resistant paints, insulation coatings and flexible, crack resistant paints.

"The move towards affluence will also begin to show on the exterior of apartments whose owners will expect to see colour and vibrancy," said Ian.

"As more people purchase apartments for future investment, we expect they will become aware of maintaining a positive property image through the use of quality exterior coatings."

Increased foreign investment and specification will also have a positive impact on the demand for quality surface coatings.

Foreign developers understand that their investment is enhanced and protected by high quality exterior paints and will be a catalyst for foreign based paint manufacturers to provide high performance coatings.

On the government front, the realisation that major global or regional events can impact positively on investment has seen significant emphasis placed on the exterior appearance of buildings.

MAJOR EVENTS FOCUS

Events like the APEC meeting in Shanghai last year and the 2008 Beijing Olympics have made a positive impact on exterior coatings requirements for government showpieces.

What happens in Shanghai and Beijing has a flow on effect to other cities, particularly the provincial capitals. The effect is expected to continue to smaller cities in the coming years.

Another major driver that will increase the demand for quality coatings is the concerted effort by governments at national, provincial and city levels to upgrade coatings specifications.

In recent years the changes have included:

- a move from exterior ceramic tiling to exterior paint
- five years minimum durability for exterior paints
- building insulation requirements.

The existing market conditions that focus on price and treat paint as a commodity – all paints are the same – encourage lower quality and are not conditions in which most foreign manufacturers can survive.

To establish brand awareness and gain profitable market share, multinational manufacturers have invested heavily in training and educating both consumers and contractors about the value of quality and cost-performance.

Leading this revolution are higher profile foreign companies, but some local manufacturers will not be far behind. The returns are long term but growth rates of

30 – 50 percent annually in the quality exterior market are worth the investment!

EXTERIOR COATINGS DEMANDS

Although the Chinese government will continue to develop standards for exterior coatings, the main driver is likely to be the market itself with some of the main product demands likely to include:

- exterior performance of five years minimum but should have at least ten years free from yellowing, chalking or cracking (when applied over a sound substrate).
 - UV stability (for example involving 100% acrylic technology)
 - dirt pick-up resistance to combat heavy pollution in China's cities from organic pollutants (such as vehicle exhausts), dust (as near construction sites) or sand (as experienced in Beijing)
 - flexibility or crack bridging ability to combat cracking in concrete structures and cement renders
 - water resistance and breathability that will allow the build up of vapour inside a building to be released without damage to the coating
 - insulation capabilities that meet the energy conservation targets of the Ministry of Construction
 - environmentally friendly coatings such as water based and low VOC paints
 - price competitive coatings
- For B&Q and other retailers, the rapidly growing awareness of the potential for quality coatings in this huge market is a reassuring light at the end of a substantial investment tunnel.

Q How can I keep the paint in the lounge room clean?

A Most paints can be washed but with varying degrees of success. Premium quality paints are more washable than budget brands. Many marks can be removed with soapy water on a soft cloth. The new premium acrylic paints that are specially formulated to be stain resistant, are usually also resilient enough to withstand common household cleaners for more persistent stains. Ability to withstand cleaning can also depend on the sheen level, so where flat paints are more likely to show wash marks, low sheen and semi gloss acrylics are far easier to clean.

Q Just how washable is washable paint?

A Frankly, the better the quality the more washable the product. Washability is actually the combination of three properties:

- Stain resistance – which is the resistance of a paint to taking up a stain, or if staining occurs, the ease with which the stain can be removed.
- Burnish resistance – which is the resistance of the paint film to going shiny where it has been washed.
- Scrub resistance – which indicates just how much repeated washing the paint will take without rubbing the paint off. In general, higher sheen finishes are more washable than lower sheen finishes, particularly flat. Premium quality acrylic paint will generally show better stain and scrub resistance than ordinary paints due to their higher levels of acrylic polymer, which provides better performance.

Q Can I use ceiling paint in a wet area such as a bathroom?

A Generally ceiling paints are not designed to withstand the extremes of moisture and condensation present in a bathroom, ensuite etc. They are generally designed for use on ceilings where there is no wear and tear. They are often formulated to be ultra flat, so they will hide surface unevenness and would therefore be more susceptible to mould growth in moist areas. For a bathroom ceiling the best choice is a low sheen acrylic or a specialist 100% acrylic ceiling paint recommended for that use by the paint manufacturer.

Q Is a primer really necessary under an exterior paint?

A In Australia and New Zealand, some premium paint brands offer self-priming exterior topcoat paints. These are specially formulated, premium quality 100% acrylic exterior paints. They are formulated to provide the adhesion of a primer, together with the exterior durability expected of a premium finish coat. Where a specially formulated, self-priming 100% acrylic exterior topcoat is selected, you may dispense with a coat of exterior primer. However as a general rule, a system comprising one primer coat plus two coats of a premium quality top coat will often outperform just two coats of the same topcoat, because it yields a greater thickness of the protective paint film.

Q Why do some pastel yellows and creams take up to three coats to cover when deeper colours only need two coats?

A Some colorants, such as the clean yellow and orange tinters, have the effect of making the paint ever so slightly transparent, and the result is the paint appears not to "hide" the surface as well as other paint colours do. This is an optical effect, where colours of the red/orange/yellow end of the spectrum do have less opacity than colours at the green/blue/violet end. Generally iron oxide, ochre and black tinters have very good opacity or hiding, and therefore help the deeper and earthier shades to cover better.

Q On a rough sawn cedar wall facing the sun, how long will a clear coat last?

A Clear coats are inherently less durable than pigmented (opaque) finishes. Their transparency allows high intensity UV to reach the timber beneath the coating and degrade its surface, leading to failure of the clear coat. Most specifically formulated exterior clears need routine maintenance at least every two years.

Q Is a sealer really necessary on paperfaced plasterboard?

A The sealer helps to even out the porosity of the paper face of the plasterboard and the jointing compound, thus providing an even, uniform surface. This helps to avoid sheen differences. Sealers are formulated to do this, whereas topcoats generally are not, as they are formulated with other properties in mind. Therefore, the shortcut practice of diluting the first coat of topcoat with water does not give as good a result as using the proper sealer in the first place.

Q Do you really need to use an undercoat over existing gloss enamel?

A Yes, to help provide better adhesion of the new paint to the old glossy paint, it is best to lightly sand the old paint film, then apply a coat of undercoat. Old gloss enamels are often used in high traffic areas, so adhesion is always important, and using an undercoat makes sense. An additional advantage is when the new topcoat is a significantly different colour, an undercoat helps provide both adhesion and good colour hiding.

Q Why does white enamel go yellow on a sliding door that is not used very often, and how do you prevent it?

A Light coloured enamel paints are known to discolour (yellow), as they get older due to the alkyd resin they contain. This phenomenon is worse in dark conditions, which is why it is more obvious on sliding doors, inside cupboards, or behind furnishings. Best prevention is to use a premium quality water-based acrylic paint instead of an oil-based enamel. Because of their chemical composition, acrylic paints do not yellow in the dark.

All paints are not equal

PQI • Information
• Education
• Promotion



When you need to know about paint, ask the Rohm and Haas Paint Quality Institute. Since 1989, we've been spreading the message globally about the benefits of using top quality paints and applying them correctly.

At Rohm and Haas research facilities around the world we subject paint to its worst enemies – the sun's ultraviolet rays, moisture and dramatic temperature fluctuations.

Our ongoing evaluation provides objective, accurate and comprehensive information about paint performance to paint sellers, specifiers and contractors.

And an independent source for everything under the sun you need to know about the advantages of top quality paints and painting.

The Paint Quality Institute – proof that all paints are not equal.

www.paintquality.com

