Promat Technology Trends

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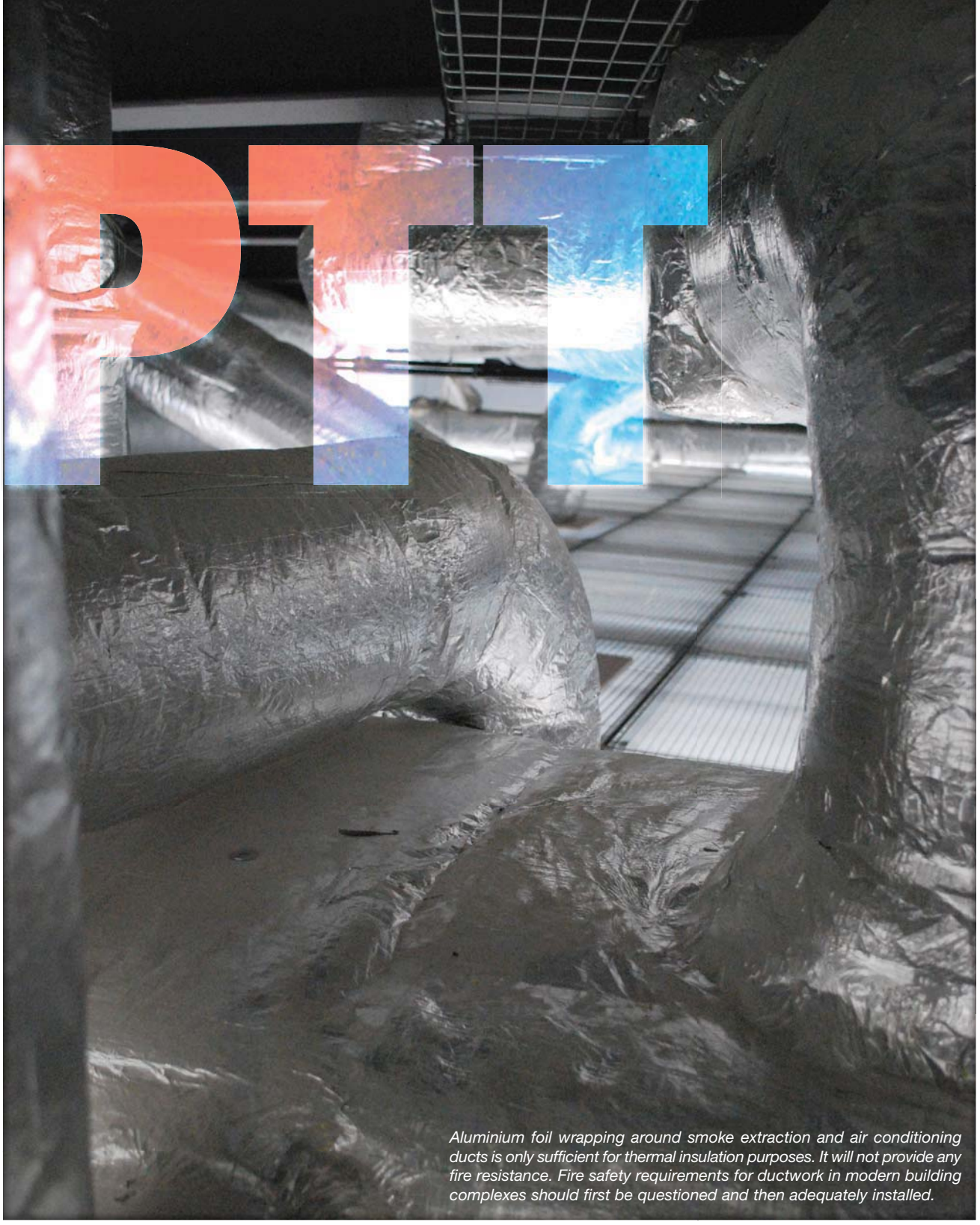
Another Innovative And Clever "Leap of Faith"

From Australia, Home of UniCollar® And Many Plastic Fire Collars...

For two decades or so, fire collars have been an established fact of life in the big wide land Down Under. They have become a market place commodity item, ubiquitous on the shelves of all major trade outlets of plumbing suppliers.

PromaSnap® floor waste system is certified under the WaterMark *Certification Scheme.*

Continued on page 3



Aluminium foil wrapping around smoke extraction and air conditioning ducts is only sufficient for thermal insulation purposes. It will not provide any fire resistance. Fire safety requirements for ductwork in modern building complexes should first be questioned and then adequately installed.

Understanding Smoke And Developing Effective Smoke Extraction Strategies Significantly Increases Safety Quotient In Modern Built Environment

The tragic fact of fire is that the smoke, fumes and toxic gases usually claim significantly more lives than the fire itself. Smoke is a silent and deadly killer. Indeed, there are as many different types of smoke and smoke plumes as there are different fires. In many instances, smoke can be incredibly toxic, containing a lethal cocktail of gaseous and particulate chemistry that depends on the type of fuel load at the seat of the fire.

Given that the built environment and building design is increasingly complex – and the demands of building usage ever more challenging for owners, managers, designers and users alike – the way in which buildings and building design cope with smoke and smoke extraction has become a principal concern for many concerned with the design, construction and operation of modern structures.

Getting The Building Design Right, From The Very Beginning

Clearly, the development of effective smoke extraction strategies is essential. These should be taken into consideration as early as the drawing board stage, carried forward and seamlessly integrated into the structure's design.

Such planning regimes will include factors like stack and wind effects, temperature effect of fire, heat and ventilation air conditioning (HVAC) and ventilation systems, local climatic conditions and the known characteristics of smoke behaviour.

In fact, the design process is best initiated with the careful selection of design fires which establish clear, realistic parameters of heat and volumes of smoke. Fortunately, considerable test data and empirical evidence is available. Determining fire size provides a scientific basis on calculation which has a direct impact on fundamental design principles which in turn aim to make the business of effective smoke extraction a routine matter for all built structures.

The experts in the Technical Department of Promat International Asia Pacific provide a free consultation service on Smoke Extraction and all other matters related to fire design in the built environment.

Impact Of Fundamental Design Principles

Fundamental design principles also include determining acceptable smoke layer depth, identifying smoke reservoirs, the calculation of smoke volume and temperature, the number and location of smoke extraction points, the size of vents and fans, and fan temperature rating. Other design factors look at the need for inlets and inlet air to balance the thermal dynamics of smoke movement.

Given the importance that HVAC systems and ductwork in the smoke extraction systems of most modern buildings nowadays, the implications of fire resistant ductwork and the construction of fire resistant smoke extraction ducts are vital components in ensuring effective smoke extraction systems and strategies.

Continued on next page

Chemistry, Commonality & Profitability

While enjoying a recent underwater holiday from the comforts of a small but well-equipped dive boat, it re-occurred to me once again why ships are analogous with life in general and how they draw a distinct parallel with the built environment we at Promat spend so much time and effort making safer. Life is indeed fragile, surrounded by considerable risks.

All marine vessels need constant attention, maintenance, investment and energy to sustain effective functionality. Indeed, ship owners and operators, like to see their vessels in constant operation. An idle ship costs money. Then, ocean going vessels have to contend with the pervasive, powerful forces of Mother Nature, and still deliver their contents of goods and passengers safely to a distant destination, on time and on budget.

Although largely static, buildings of conventional concrete, steel and glass confront and usually overcome similar scenarios on a daily basis.

This issue of Promat Technology Trends – our third under its new masthead, by the way – looks at some of the trends that continue to influence our business.

The cover story focuses reader attention on the new edition of a famous Promat book, *Guide To Smoke Extraction In Buildings*. The revamped title is revised and updated to better reflect the complexities of the subject and the times we live in. As buildings and the way in which we use them become considerably more complex, the management of smoke and frequently lethal fumes and gases is quite rightly recognised as an independent scientific discipline. This new edition, illustrated with standard setting quality Promat technical drawings will be available soon through all Promat International Asia Pacific offices.

On the opposite page three we look at the innovative and successful PromaSnap® floor waste fire collar, yet another clever and market astute "leap of faith" from our entrepreneurial colleagues at Promat Australia. The application of Cafco FENDOLITE® TG at the new factory of a global leader in the synthetic latex business is reviewed on the same page.

Turning to page four, we see the benefits of PROMATECT® 40 as it is applied to suburban housing in Singapore and to the roofs of houses in bushfire prone areas of Australia. The benefits of this cost effective system are truly amazing and I feel we have just scraped the surface of future usage and applications.

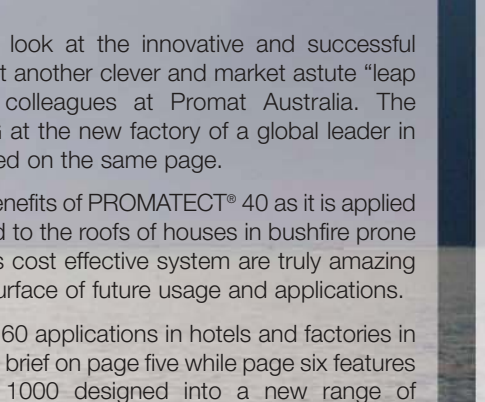
PROMATECT®-H and PROMINA® 60 applications in hotels and factories in Singapore and India are overviewed in brief on page five while page six features the innovative use of PROMASIL® 1000 designed into a new range of traditional ovens – called tandoors – in the kitchens of Indian restaurants in the big country down under. Increased safety and good food, what could be better?

While on page six readers will notice the Memorandum of Understanding (MoU) we recently inked with Omahams Corporation in their role as a new distributor for Promat marine products and systems in Malaysia. Their strong connections with the Royal Malaysian Navy is reflected in the story on the presentation we gave high ranking naval officers, defence and shipyard officials. The RMN is now well-informed on how Promat marine products and systems can make sea-going vessels safer and more secure to live and work aboard. It's a niche market but one with considerable downstream potential, especially when the chemistry and commonality between the various organisations are factored into the equation.

Concluding our nautical note, we have been bobbing about on a sea of some economic uncertainty for the past year or so. Now, although global markets are regaining a measure of buoyancy, I am convinced that the future will be very different from the past. Indeed, we will have little choice but to consolidate existing market share as we search for new and more profitable opportunities around an increasingly competitive region. It won't be easy but with new markets – like the marine sector, for example – Promat will sail on and conquer new seas.

As we continually develop and launch new ideas and modern concepts for fire safety, I look forward to your sustained professional contributions to Promat, The Knowledge Centre for superior fire science technologies in the region, both at sea and of course on dry land.

Erik D. van Diffelen
Managing Director
Promat International Asia Pacific
October 2009



Developing Effective Smoke Extraction Strategies

Continued from the front page

In Different Buildings, Smoke Behaves In Different Ways

The material burning at the scene of a fire will determine the type of smoke and the size and density of the smoke plume.

However, the way smoke then behaves is largely determined by the type of building in which the fire and smoke occur within.

Not surprisingly, while the basic principles of smoke extraction are similar, different variations to relevant smoke extraction systems have to take into account different building types such as multi storey office and other similar high rise structures, warehouses, tunnels and other underground structures such as car parks, atrium buildings and the increasingly pervasive and very popular shopping malls.

Each of these structural types require a different approach and a different solution to effective smoke extraction strategies.

(Clockwise from below left) Examples of effective smoke extraction systems in residential, commercial and office buildings and carpark.

Promat's New Guide To Smoke Extraction In Buildings

The revised and updated 2009 edition of this famous Promat title (as shown below this page) provides a comprehensive overview of effective smoke management and control strategies.

The 20,000 word, 80 page guide contains numerous worked examples and abundant, scientific information related to all aspects of smoke control in buildings of all types, from high rise to underground structures.

It is lavishly illustrated with full colour technical drawings and information packed graphs and tables.

This robust manual is designed as a source of pragmatic, useful information for anyone concerned with modern smoke control and extraction principles, how to design and use them to increase fire safety levels in the modern built environment.

Promat's new *Guide To Smoke Extraction In Buildings* is required, essential reading and will be available upon request. ☐

Another Innovative And Clever "Leap of Faith"

PromaSnap®

Continued from the front page

Equally well known, many opportunistic companies see this particular market segment as an easy one to exploit. Net result? Substantial reduction in product quality and technical service.

Indeed, the latest competition comes in the form of fire collars especially designed for floor grates in wet areas such as bathrooms, showers, kitchens and laundries.

These devices have to close pipes fast enough to keep the temperature on the surface of the floor grate below 180°C.

Promat Australia Once Again Meets The Challenge And Lives Up To Enhance Customer Value

The all new PromaSnap® floor waste system not only sets out to change the rules but also give customers more than just a fire collar.

This cleverly conceived and brilliantly executed PromaSnap® device is not only an effective fire resistant closing mechanism for the pipe but it also provides a puddle flange which helps prevent water leakage around the floor waste outlet while setting the correct height for the concrete floor slab.

PromaSnap® has been tested to AS1530.4 2005 in accordance with AS4072.1 2005 and certified under the Australian WaterMark Certification Scheme.

1. An outer cap that will keep concrete, water and rubbish out of the pipe work during construction.
2. A central core (with a cap) that can be adjusted to the correct screed height for the finished tile floor.
3. A puddle flange that can be set at the exact height of the finished slab.
4. A unit of PROMASEAL® Base that will hold the pipe in place during pouring of concrete floor slab.

The colour of the product depicted here may vary slightly from the actual colour of PromaSnap® device.

Easy To Install, PromaSnap® Does The Work Of Three Products!

When the time comes in the collar installation process to add the cement screed for floor grading or tiling, the outer cap is removed and an inner section of the device is raised to the appropriate screed level.

When this finishing work is complete, the inner cap is removed and the floor grate simply installed. As such, the PromaSnap® floor waste system device is one fire protection product that does the work of three.

Already commercially released to the market, Promat Australia expects the PromaSnap® fire collar to emphasise Promat's traditional strengths of service and system innovations. ☐

New Johor Factory For Worldwide Leader Of Synthetic Latex Industry Protects Structural Steel With Cafco FENDOLITE® TG Spray Systems

PolymerLatex GmbH is a recognised leader of the global synthetic latex industry. The company is headquartered in Marl, Germany and operates factories in several key locations around Europe. PolymerLatex also has offices sited in strategic locations to service their worldwide client base.

The company's products are shipped to international customers in the adhesives, construction, paints and coating, protective gloves, molded foam and innovative latex industries.

PolymerLatex Sdn Bhd Is A Significant New Investment

In a major new investment, PolymerLatex – the world's second largest nitrile latex supplier – has injected some €50 million (US$73.5 million) in their fourth plant in Pasir Gudang in Johor, in the south of Peninsular Malaysia.

Nitrile latex is the key raw material in the production of synthetic rubber gloves. The new Pasir Gudang facility has an annual production capacity of 100,000 metric tons but this can be further expanded at short notice to meet on market conditions.

Pasir Gudang means "sand warehouse" in Malay, a reference to the area's historical significance.

Today, however, it is a busy port and industrial centre 35km, about 40 minutes by car, east of Johor Bahru – the capital of Johor, one of Malaysia's largest states – to which it is connected by railway links and a major four lane highway. The main economic activities of Pasir Gudang revolve around transportation and logistics, shipbuilding, petrochemicals and other heavy industries.

The integrated transportation links around the area make Pasir Gudang the strategic site of considerable investment in oil palm storage and distribution.

These factors, in tandem with the nearby Iskandar Development Region – integrating numerous residential, industrial, leisure and lifestyle projects – are expected to be the engines of significant regional economic and population growth in the years ahead.

Incidentally, the PolymerLatex Sdn Bhd representative office in Kuala Lumpur also attends to the company's growing Asia Pacific marketing needs.

Cafco FENDOLITE® TG Steel Protection System Trowel Applied

The columns and beams on the first and second levels of the new Pasir Gudang production plant employ approximately 2,000m² or 1,300 bags of 120 minute Cafco FENDOLITE® TG steel protection system.

The typical spray pump method of application was disavowed due to the main contractor's concern for potential damage to sophisticated equipment already installed in the factory. Instead, the Cafco FENDOLITE® TG steel protection system was trowel applied to the usual high ISO standards demanded by world leaders PolymerLatex and Promat.

Installation of the Cafco FENDOLITE® TG steel protection system at the PolymerLatex factory in Pasir Gudang began in late June and was completed on time and on budget by early September 2009. ☐

Location
PolymerLatex factory, Pasir Gudang

Main contractor
Hexagon Tower Sdn Bhd

Installer
Jireh Construction Sdn Bhd

Product
Cafco FENDOLITE® TG

EHS Environmental, Health & Safety

GreenLabel SINGAPORE 041-009

Build A Suburb Dream House
Within A Few Months With PROMATECT® 40

Speedy erection, minimum foundation costs, economical and environmentally friendly construction. If these are serious factors in building your dream house on expensive land, such as that in a city like Singapore, PROMATECT® 40 dovetails well with most budget parameters.

PROMATECT® 40 has a high loading capacity; design loads of up to 5KN/m² can be met with up to 25mm thick boards. Its smooth surface saves the money required for skim coating dry walls and ceilings. The entire architectural "skin" of the house structure can be constructed using PROMATECT® 40 boards.

Home owners and residents can sleep tight and worry free because PROMATECT® 40 contains no wood fibres. It is therefore non-combustible and extremely unfriendly to termites.

This "Green House" in suburban Serangoon Gardens, is constructed with roll formed lightweight steel frame technology. This form of dry building construction is a refreshing change from conventional methods as it is exceptionally low in air and noise pollution.

Promat Singapore Team Visits Serandoon Gardens "Green House"

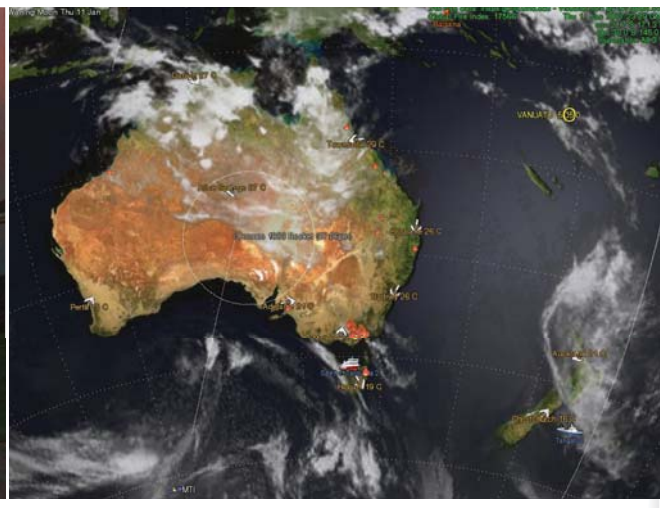
To encourage enthusiasm and promote awareness of green principles, team players from Promat Singapore (see picture) were treated to a short but persuasive excursion to the "Green House", constructed primarily from PROMATECT® 40 mineral bound magnesia boards, formulated entirely from organic materials and manufactured by the latest, environmental friendly Promax® Technology.

The "Green House" stands strong, proud and tall in Serangoon Gardens, its white walls and ceilings making it look prominent and safe in a long row of suburban houses! ☐

(From left) Borhan Munir, Khoo Kim Leong, Chong Swee Lin, Yang Kai Li, Angela Lee, Thomas Wong and Caline Lee

(Clockwise from above left) A robust, impact resistant enclosure to the stairwell is ensured with a wall constructed from PROMATECT® 40 boards; the basic skeletal of the house structure in progress; 25mm PROMATECT® 40 floating floor in the bathroom prior to waterproofing, the sanitary pipes are neatly concealed (inset) and the fire resistant pipe collars can be introduced with ease.

PROMATECT® 40 Fire Resistant Roof
Developed For Australia's Bushfire Prone Residential Areas



Considerable resources help Australians cope with the annual bushfire risk. Many houses employ inherently fire resistant walls but, paradoxically, roof structures are often overlooked.

In a typical scenario, the flame front approaches with alarming speed, passing by in a mere two to three minutes. However, temperatures can escalate rapidly to around 1200°C.

The effect of these extreme temperatures on a roof and, equally important, the underlying support structure have been unknown until fairly recently.

Tests now clearly indicate that even after the fire front has passed, combustibles such as timber framing contain residual heat which can continue to grow. In turn, even after considerable time, ignition can then occur within roof spaces and wall cavities, with unsuspected and frequently tragic results.

A new test method AS1530.8 Part 2 allows for a 30 minute flame exposure followed by a 60 minute observation period. The flame exposure period has a large safety factor, given the relatively brief but intense nature of most passing bushfires.

The flame exposure component of the test uses the ISO and AS time temperature curve which is followed by a 60 minute monitoring phase, critical to ensure no re-ignition of the (roof) specimen occurs. Radiometers are used to ensure heat from the specimen is not increasing, as this would indicate continuing combustion from within the system.

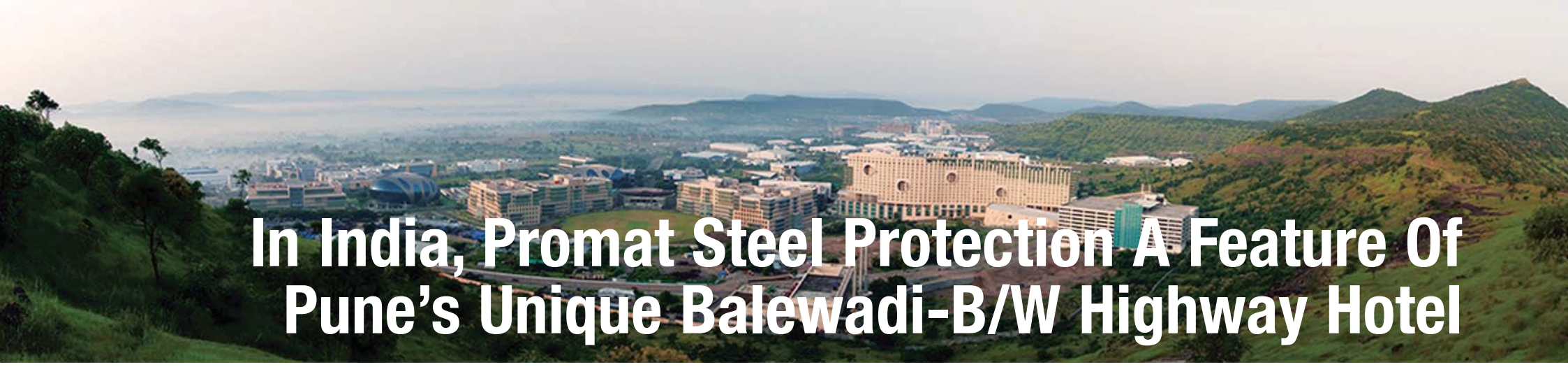
The development of a compliant roof system — jointly funded by Forest and Wood Products Australia Limited, BlueScope Steel Limited and Promat Australia Pty Ltd — is a cooperative approach that meets the requirements of the most extreme bushfire attack level under the new Standard.

A Promat solution for the main roof using PROMATECT® 40 boards has been successfully tested at Exova Warrington, a NATA approved facility, and is now on the market.

It's reassuring to note that PROMATECT® 40, manufactured according to environmentally correct green principles, can now do so much more to protect real life and property from the extremes of hostile environmental phenomena. ☐

1. PROMATECT® 40 board
2. Timber roof construction
3. Corrugated roof sheeting
4. Roofing screws or nails
5. Gutter supported by metal or timber fascia
6. Plasterboard lining with PROMATECT® 40 overcladding

For details of construction, please contact Promat.



In India, Promat Steel Protection A Feature Of Pune's Unique Balewadi-B/W Highway Hotel

Location **Balewadi Hotel, Pune**	Architects/Consultants **Upsani Design Cell**
Builder **Unity Infrastructure Projects Ltd**	Installer **Hitakshi Safety Solutions**
	Product **PROMATECT®-H**

Strategically located near the software and biotech parks of Hinjewadi and the automobile industry at nearby Chakan, Balewadi-B/W Highway Hotel's unique architectural language of two cantilevered floors creates landscaped garden terraces where natural plants absorb carbon dioxide emissions from the nearby highway.

The demands of this complex structure required the combined engineered and structural strength of concrete floors and steel. The steel structure required fire protection.

The solution was provided by the Promat Mumbai Team in collaboration with applicator/installer, Hitakshi Safety Solutions to achieve fire resistance of 120 minutes, based on PROMATECT®-H 12mm and 15mm boards.

Approximately 6,000m^2 of steel work was installed over a two month period by a team of 12 to 15 workers, doing much to enhance the safety of eventual guests and users of the hotel's facilities.

Mr. D. M. Upasni of Upasni Design Cell comments in an interview with Promat, "the structure was built for the Youth Commonwealth Games on a BOT (Build, Operate and Transfer) basis by Unity Infrastructure Projects Ltd to a time sensitive schedule of just 15 months.

To further complicate matters, there was no detailed engineering process. Indeed, the design and engineering phases were done simultaneously against a backdrop of construction in progress.

This project demanded a specific architectural vernacular aimed at creating good first impressions and a soothing environmental ambience for comfortable guest stays. This was a matter of design and environmental aesthetics.

The external façade of the building indicates a clear structural personality through the extensive application of unique terracotta façade tiles from Germany, in balance with grey and black glazing.

The lower two floors are clad with curtain walls of specially processed glass, creating a distinctive impression of glass blocks which transmit diffused light but eliminate ambient glare.

This unique system helps harness and optimise natural light, maximise daylight and reduce heat gain. The same principle applies even to internal corridors featuring cut-outs from glass blocks, allowing natural light to percolate through from external terraces.

Another unique feature of the hotel is the 40m high central pyramid above the swimming pool. The pyramid is slated to become a unique glass bottomed restaurant.

The structure will cater to 1200 athletes during the games. The design capacity is for three people to one guest room.

In fact, Balewadi Hotel has been built to fulfil two hospitality objectives, Orchid Five Star Luxury accommodation and VITS Four Star business accommodation.

Not surprisingly, the hotel is equipped throughout with wi-fi connectivity and state of art technology expected by modern business class travellers.

In developing the Balewadi Hotel, Upasni Design Cell spared few efforts offering unique design solutions. [Upasni Design Cell] were well assisted by team associate, S.K Murthy for MEP services, Epicons for structural design, Roots for landscaping and Unity Infrastructure, the main contractors who invested considerable effort and resources complete this challenging assignment on time.

Upasni Design Cell also designed the interiors and inspired the entire design and engineering team.

Krishna Avarsekar, Chairman and Managing Director of Unity Infrastructure and Vithal Kamat of Kamat Hotels India Ltd were instrumental in the development of the Balewadi Hotel project.

Project manager, Narendra Singh of Unity Infrastructure, Badkar, site leader of MEP Services and Anil Avarsekar, Director of Unity Infrastructure all made significant contributions to the success of the project.

This unique hotel is not just another feather in the cap of Upasni Design Cell but kudos must go to the entire project team."

For more information on modern hotel complex's fire resistant construction, please contact Promat for a copy of *PROMATECT® 50: HOTELS "A Guide To Lightweight Construction"*. ☐

Volkswagen Trust Promat
For Their New Pune Factory In India

Location **Volkswagen factory, Pune**	Installer **M/s Unica Building Solution, Pune**
Consultants **Jones Lang LaSalle Meghraj**	Main product **PROMINA® 60**

Volkswagen of Germany have established a huge manufacturing plant at Chakan-Maharastra Industrial Development Cooperation (MIDC) 50km from Pune. It's an important strategic investment of Volkswagen aimed at the largely untapped and potential car business of India as well as the nearby South East Asia market.

Volkswagen's new ultra modern plant is spread over 500 acres of real estate. Phase One of the plant is ready, with fitting out of second phase likely to start very soon.

Promat sales and technical team were involved in this project from drawing board stage and have assisted Volkswagen architects with proactive fire protection solutions.

PROMINA® 60 is used for 120 minutes fire resistant partitions at various locations such as the logistics area, air bag room and fuel depot area. PROMASEAL® Bulkhead Sealer System and PROMASTOP® Cement are installed for penetration seals throughout in the factory.

Volkswagen is indeed a feather in everyone's cap. ☐

PROMATECT®-H 120 Minutes Fire Barrier Curtain Wall For The Bosch Company In Singapore

Bosch Singapore is the regional headquarters for Southeast Asia of Germany's well known manufacturer of power tools, construction and consumer appliances. In fact, the Bosch Group and has had a presence on the island from as far back as 1923.

When completed in the third quarter of 2009, this new regional headquarters building will have a gross floor area of 223,000 ft^2. The new building, located in the island republic's suburban Bishan area, will also accommodate some 1,000 Bosch associates.

Five floors of the building, from the 2nd to 7th, were installed with PROMATECT®-H 120 minutes fire barrier curtain wall along the boundary of the building, effectively segregating fire spread between floors. Total material installed amounts to some 1.212km. ☐

Location **Bosch Singapore, Bishan**	Engineer **DE Consultants (S) Pte Ltd**
Builder **Sim Lian Construction Co Pte Ltd**	Installer **Prime Structures Engineering Pte Ltd**
Architect **SEP Partnership**	Product **PROMATECT®-H**

Promat Inks MoU With OMAHAMS Corporation,

Makes Successful Presentation To Royal Malaysian Navy

Omahams Corporation is now a new distributor for Promat marine products and systems in Malaysia. The official ceremony marking this important Memorandum of Understanding (MoU) took place in Kuala Lumpur in early August 2009.

It was initialled by Mohd Said Hj Omar, Managing Director of Omahams and Mr Rajarathnam Krishnan, Regional General Manager of Promat International Asia Pacific.

The signing took place in the Selangor offices of Omahams and was witnessed by Mr Erik D. van Diffelen, Managing Director of Promat International Asia Pacific.

(From left) Mohd Said Hj Omar, First Admiral Dato' Ir Hj Ahmad Murad Omar (Retired), Mr Rajarathnam Krishnan and Mr Erik D. van Diffelen

Omahams Corporation is also the sole distributor of marine coatings to the Royal Malaysian Navy dock yard. Partnering Omahams vast experience and extensive network means that Promat is now well-positioned to introduce the benefits of the marine fire protection business to local naval forces and beyond.

A few days after the new distributor ceremony, Promat and Omahams hosted a group of officers and engineers from the Royal Malaysian Navy, Malaysian Ministry of Defence and Boustead Naval Shipyard Sdn Bhd.

The aim was to increase awareness and understanding of Promat marine products and systems.

The guests included engineers and high ranking officers from the Royal Malaysian Navy administration service and officials from Boustead Naval Shipyard Sdn Bhd. The latter company designs, builds, upgrades, repairs and maintains both naval and merchant vessels. In fact, Boustead recently won the contract for the Royal Malaysian Navy's new offshore patrol vessels.

The presentation was "launched" by a warm welcome speech from Mr Rajarathnam Krishnan, prefacing an introduction to the global and regional Promat organisation by Mr Erik D. van Diffelen.

The Chairman of Omahams, First Admiral Dato' Ir Hj Ahmad Murad Omar (Retired) saluted the occasion with additional welcome remarks for delegates before the presentation segued to a technical overview of Promat unique marine systems and products, i.e. PROMARINE®-450, PROMARINE®-640, PROMAGUARD® and PROMASOUND® TL.

(Above) Welcoming Rear Admiral Dato' Pahlawan Dr Zainal Abidin bin Hamdan, Royal Malaysian Navy, Ministry of Defence

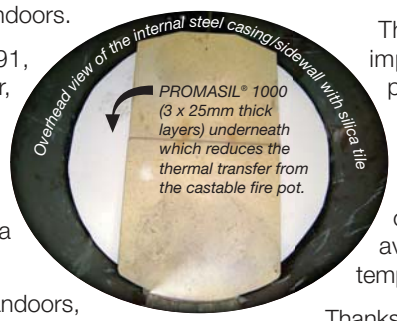
True to naval traditions, participants then "spliced the mainbrace" (metaphorically, of course) with refreshments.

The convivial in-house group lunch that followed extended the central message successfully made at the earlier high impact presentation…that the quality and benefits of Promat marine products can do much to substantially reduce fire risk and make marine vessels much more secure and safer to live and work aboard. ☐

PROMASIL® 1000 Now On The Menu For Superior High Performance Insulation In Many Indian Restaurants In Australia

Thanks to tested, proven and superior insulation performance, an increasing number of Indian restaurants in Australia are turning to PROMASIL® 1000 to insulate their kitchen's tandoors.

Commencing operations in 1991, Beech Ovens of Stones Corner, Queensland have systematically refined and improved their oven designs in appearance, functionality, versatility and thermal efficiency. Today, Beech distribute their ovens not only in Australia but to a worldwide market.



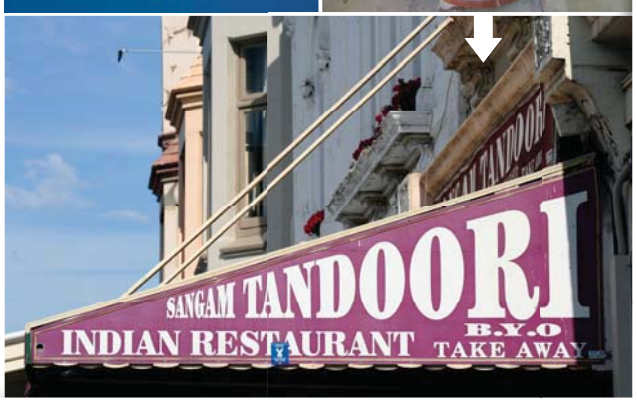
To manufacture their speciality tandoors, Beech Ovens of Stones Corner, Queensland now utilise the expertise of Promat for best performance insulation.

Promat Australia supply Beech with 25mm thick PROMASIL® 1000 of 245kg/m³ filter pressed calcium silicate boards. They are then cut into circular segments and stacked in layers underneath silica tiles to reduce thermal heat transfer from the cast refractory gas fire pots of the tandoor ovens by up to 250°C.

This functional and economical system improves operational efficiencies while preventing the oven's outer metallic casing base from becoming heat affected.

Beech Ovens' tandoors have been designed using selection trials of the best cast refractory and insulating materials available, withstanding operational temperatures up to 1200°C within the fire pot.

Thanks to the company's international renown for fire protection and high temperature insulation systems, Promat Australia is now well-positioned to continue working with Beech Ovens, particularly with the supply of PROMASIL® insulation products, its technical expertise and system support services. ☐



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