

## Solar reflective, "cool coatings" now in the Philippines

by Gretchen Laurel

More than a business decision, the use of solar reflective paint is a question of values and stewardship: if you can make a difference in the issue of climate change with a simple decision of PAINTING your roofs, would you do it?

It's common sense: you don't wear black or dark colored clothes during summer—unless you want to suffer heatstroke, that is. The same principle goes with our roofs. The lighter or whiter your roofs are, the less heat it absorbs.

The benefits of white roofs have long been documented; in fact, the US Department of Energy says that a white roof can reduce 10%-20% in a building's electricity bill.

But what if your company handbook demands that you use corporate colors and you're left with no choice but to color your roofs red or blue? Are you really left with no other option? Not anymore. Today, solar-reflective technology can and has gone beyond the use of white roofs.

Enter the use of infrared-reflecting pigments; enter the science of cool.

### The Science of Cool

Sunlight is white light; a mixture of all the colors in the spectrum –there are two primary components in sunlight that reaches our earth surface: visible and infrared light. Visible light is what makes up color; yet more than half the spectrum is made up of infrared light – invisible and until now, unconsidered.

Infrared light, because it is invisible does not affect color; but it does have a great effect on rate and extent of heat build-up. Absorbed infrared light is transformed into heat; warming the surface and surrounding areas. Pastel or light colors reflect infrared light; but traditional dark colors absorb it.

This isn't the case when the paint itself is infused with infrared-reflecting pigments to produce what's called "cool coatings."

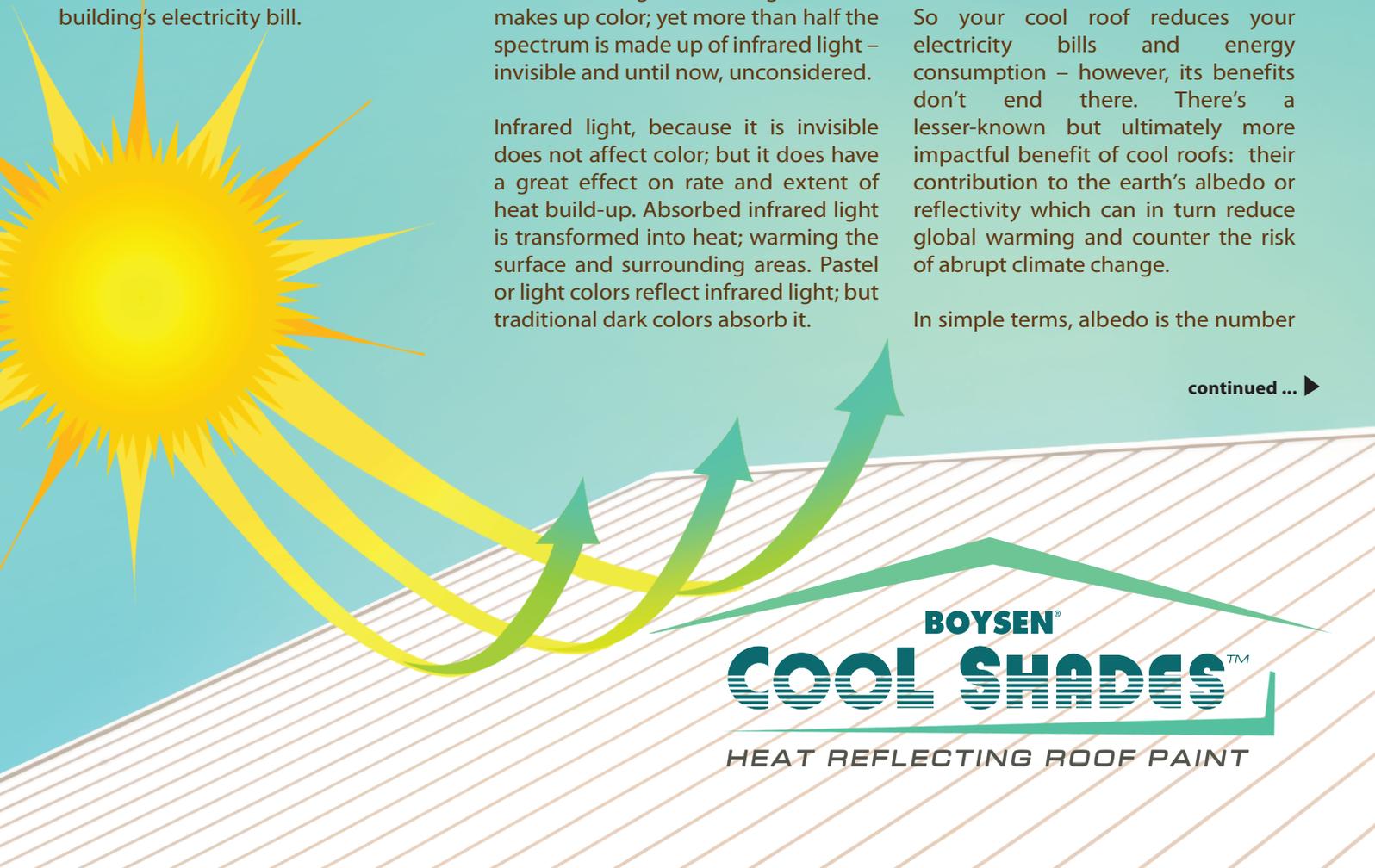
Cool coatings are designed with highly engineered infrared-reflecting (IR) pigments making it possible to create greens, blues, yellows, grays and other shades of roof coating WHILE reflecting infrared light and reducing heat build up. A paint film containing infrared-reflecting pigments will stay cooler than one containing non-reflective pigments of the same color.

### Think Globally, Roof Locally

So your cool roof reduces your electricity bills and energy consumption – however, its benefits don't end there. There's a lesser-known but ultimately more impactful benefit of cool roofs: their contribution to the earth's albedo or reflectivity which can in turn reduce global warming and counter the risk of abrupt climate change.

In simple terms, albedo is the number

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**BOYSEN®**  
**COOL SHADES™**  
HEAT REFLECTING ROOF PAINT

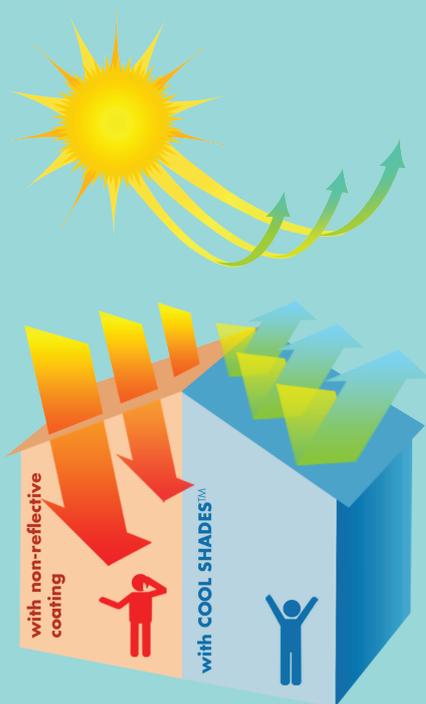
between 1 and 0 that indicates how much a surface reflects light. The higher the albedo, the better. Planet Earth now has an average albedo of 0.3—that is, it reflects about 30% of the sunlight that lands on it—a number that's of course impacted by the type of surface that the sun hits on impact (ie. Roofs, rooftops of buildings, etc.). Right now, more than 90% of the roofs in the United States are dark colored, with an average albedo of approximately 0.15. Given this, there's really great potential in the use of cool roofs.

The higher albedo of a cool roof instantly reduces the amount of heat that can be trapped by the Earth's greenhouse gases (GHGs). A group of scientists from Concordia University in Montreal actually stated that transitioning to reflective roofing and pavements in the world's urban areas would offset the equivalent of emissions from the planet's 600 million cars for the next 18 years. Now that is global impact.

Locally, we can now do our share in this global revolution by using the technology behind cool roofs. The good news is, we don't have to import this from anywhere else because local paint manufacturer Pacific Paint (Boysen) Philippines is making it available through Boysen® Cool Shades™. In the tradition of environmentally innovative coatings like Boysen® KNOxOUT™, Cool Shades™ is a heat-reflective colored roof coating which is water-based and has low VOC. Tests show that it can reflect 21% more infrared light and is 35 degrees cooler than ordinary roof coatings. And to maintain the heat reflective effect over time, Cool Shades™ is designed with an all-acrylic binder that provides excellent dirt pick up resistance.

The technology is scientifically sound, globally proven and locally available. The positive environmental, cultural, societal and global impact is there. All these combine to make cool roofs as one of the easiest, most rational interventions against climate change. The only question is whether you and your company are ready to innovate and do your share.

For more information about the Boysen® Cool Shades™ and other environmentally innovative coatings, please log on to [www.boysen.com.ph](http://www.boysen.com.ph) 



## MBFI-Boysen Scholarship Program awards 6 scholars

Pacific Paint (Boysen) and Metrobank Foundation Inc. (MBFI) awarded six scholars for the SY 2012-2013 for the MBFI-Boysen Scholarship Program. The ceremony was held at the Boysen office in Quezon City where they welcomed five architecture students from University of Santo Tomas (UST), and one architecture student from UP Diliman.

This year's six recipients include Neil Ching, Lorainne Clemente, Hajime Fontanilla, Rvin Panganiban, Alyanna Zafe from UST and Christian Madrogaba from UP Diliman.

Boysen and MBFI officials attended the ceremonies, welcoming their 8th batch of scholars. Mr. Willy Ong, president of Boysen Paint, has committed to providing deserving students with quality education. Opined Mr. Ong, "We are pleased and honored to support the students. Education is the key to a successful individual and future. We hope that through this foundation, we are able to give the students the right stepping stones in becoming the future leaders of our community."

Every year, 10 second year architecture students are selected based on their academic and financial qualifications as well as their commitment to nation-building.

All interested students may inquire with their Office of Student Affairs (UST) / College of Architecture (UP) for the qualification requirements and screening process.

MBFI has partnered with Boysen for the past 8 years to establish the MBFI-Boysen Scholarship Program which has supported almost one hundred scholars since its inception in 2005. 



The MBFI-Boysen Scholarship Program recently named its new scholars for the SY 2012-2013. With the scholars are MBFI representatives Ms. Irene Labitad (standing, 3rd from right) and Ms. Cristina Bengson (standing, center) and the representatives of Boysen Philippines led by its president, Mr. Willy Ong (seated, 2nd from right). Every year, 10 second year Architecture students are selected based on academic and financial qualifications as well as their commitment to nation-building.

# EDSA pillars transformed into air purifiers

by Gretchen Laurel

## 4th art work in the Boysen® KNOxOUT™ Project: EDSA Series revealed in time for Clean Air Month

With the long lines, the heat and the occasional shove and push they get from fellow passengers, the millions of MRT and PUV passengers definitely need a breather. And through the urban renewal initiative Boysen® KNOxOUT™ Project: EDSA this comes in the form of EDSA pillars transformed into works of art that can purify the air.

In time for the Clean Air Month last November, Boysen® KNOxOUT™ Project: EDSA revealed its fourth art work, this time featuring Singapore-born, London-based artist Erika Tan. Just like the other artists in the series, Jose Tence Ruiz (Bgy. San Lorenzo Wall, EDSA) and B+C Design Inc, (Ortigas-EDSA Interchange) and Tapio Snellman (EDSA Cubao Underpass), Erika was commissioned to come up with a 1000 sqm art work in a specific location along EDSA. Using the air cleaning paint Boysen® KNOxOUT™ as the medium, the artworks are collectively expected to clean out toxic noxious fumes spewed out by 8000 vehicles.

Erika Tan's approach was through the creative use of actual pollution statistics and data.

### Statistics become Art

In Erika Tan's work, pollution statistics are brought out right in the middle of EDSA. Bar charts, graphical lines and comparative data are painted around the giant round pillars holding up the Tramo part of EDSA; rendered in the pastel and white KNOxOUT palette.

"Taking the lead from the EDSA/Boysen project itself, I wanted to approach the work in the spirit of a merging of visual and the transformation," noted Erika. "As we visually transform an area thick with commuters and their fumes, we also through the technology of paint, clean it."

In picking up pollution statistics of several Metro Manila and other cities, Erika found a way of exhibiting the way the visual "art" of graphs directly represent one kind of understanding of what human beings in particular places are dealing with — in this case, the catastrophic odds imposed by air pollution in Metro Manila. And in using actual graphs, instead of re-designing them, she suggests that art and science may have similar possibilities and limitations.

### Clean Air Month

Erika Tan's art work is a timely, if stark reminder of Clean Air Month and how efforts should be done to clean Manila's air. "Looking at the statistics globally and more locally, it's clear that the challenges ahead for cleaner air, less pollution all round, are enormous," observes the artist.



In Metro Manila alone, air pollution causes 14 avoidable deaths per day (about 5000 premature deaths a year, as tabulated by the World Bank and the DENR). The numbers seem to be steadily increasing—in 2008, the WHO Burden of Disease said that deaths attributable to air pollution rose up to 11,012. This statistic, alongside Pollution Levels in Metro Manila Cities (June 2006-2008), Sectoral emissions of CO2 emissions from fuel combustion (2002), Increase in vehicle registrations in the Philippines (1983-2009) and Estimates of health impact and costs in four cities for 2010 Data (Metro Manila, Davao, Cebu, Baguio) were some of the data sources used by Erika. The statistics she used came from various organizations such as the Environmental Management Bureau (EMB), the International Energy Agency (IEA) and the Land Transportation Office (LTO), among others.

Erika notes that the graphic visualization, just as numerical values, are open for interpretation and contestation. She notes, however, that "the dramatic rise in vehicle numbers globally cannot be contested. And the pollution created, despite better technology or cleaner fuels, impact on the numerical and visual codes for health, length of life and, needless to say, the financial costs to governments and individuals."

She hopes that EDSA commuters as well as the millions of people who traverse EDSA everyday not only get a breather but a reminder of things that still need to be done. "While KNOxOUT does its part towards altering the future of our lives, we all need to figure out cleaner and more sustainable ways of living, working, moving, and consuming." 🖌️

# ECO SWITCH AWARD

by Gretchen Fontejon

**Pacific Paint (Boysen) Phils. Inc., and Atlantic Coatings, Inc.** were recently honored by the **Green Philippines Islands of Sustainability (GPIoS)** with an **ECOSWITCH Performance Award** in a ceremony held at New World Hotel Makati last September 25, 2012.

**Atlantic Coatings, Inc.**, the contracting arm of **Pacific Paint (Boysen) Phils., Inc.**, also received the **ECOSWITCH People Award** for its environmental efforts in the reduction of hazardous wastes, creating environmental targets which are cascaded to each department as Key Performance Indicators (KPI). Savings from wastes disposal were used to fund rice subsidies and scholarship assistance for the employees.

*"I would like to thank GPIoS for recognizing our "Rice Subsidy & Scholarship Program". From the savings that we got from hazardous waste treatment, we were able to launch a program that benefited our employees and their deserving children. This program also encouraged our employees to minimize the wastes that harm our environment leading to a greener Philippines" said Ms. Laila A. Flores, plant manager of Atlantic Coatings, Inc.*

**Green Philippines Islands of Sustainability (GPIoS)**, is a project lead by Green Philippines funded by the European Union SWITCH-Asia Program, which strives to realize EU's vision of Sustainable Consumption and Production (SCP). It is a regional partnership, consultation and training programme attempting to switch the micro climate through sustainable production for the industries within Metro Manila and CALABARZON in the Philippines. GPIoS was first launched in 2007 within Subic-Clark Area and with the success of the said project; it was later introduced in the Metro and CALABARZON area.

Both companies participated in the Ecoswitch Project in January 2011 and were among the first batch of companies certified for the ECOSWITCH during its first year of implementation in the Metro and CALABARZON area.

According to Green Philippines, the **ECOSWITCH Performance Awards** marks the end of the second phase of the four-year initiative (2009-2013) which aimed to contribute to an improved environmental and sustainable industrial revolution of Metro Manila and CALABARZON regions.

Guests from implementing partners, Technical University of Ostrava (VSB), Center for Appropriate Technology (GrAT), Austria Recycling (AREC), Asia Society for Social Improvement and Sustainable Transformation, Inc. (ASSIST), Philippine Chamber of Commerce and Industry (PCCI), European Chamber of Commerce of the Philippines (ECCP), Philippine Business for Environment (PBE), STENUM, Environmental Practitioner's Association (EPA), Department of Environment and Natural Resources (DENR) and Philippine Trade and Training Center (PTTC), were among the 400 guests present during the awarding ceremony. 🖌️



Receiving the ECOSWITCH Performance Award for Pacific Paint (Boysen) Phils., Inc. are (From left to right): Ms. Micaela Laila A. Flores, ACI plant manager and Ms. Gretchen A. Fontejon, ACI EHS manager joined by Mr. Matthieu Penot, delegate of the European Union to the Philippines and Ms. Victoria Tambunting-Alfonso, Planters Bank vice president.



Receiving the Ecoswitch Performance Award for Atlantic Coatings, Inc. from Green Philippines Islands of Sustainability (GPIoS) are (From left to right): Ms. Micaela Laila A. Flores, ACI plant manager and Ms. Gretchen A. Fontejon, ACI EHS manager joined by Atty. Juan Miguel Cuna, EMB director and Dr. Alena Labodova, ECOSWITCH project head from Technical University of Ostrava, Czech Republic.



**Boysen Green Brush** is the official quarterly publication of Pacific Paint (Boysen) Philippines, Inc. (PPBPI).

For comments, suggestions and contributions please go to [boysenbrush@gmail.com](mailto:boysenbrush@gmail.com)

# BOYSEN reaches out to victims of Typhoon Pablo

by Norie Jay Mulato

Last December 2012, Typhoon Pablo caused a path of destruction across the Philippines. Considered as the deadliest storm to hit Southern Mindanao, the storm was said to have damaged approximately Php 34.4 billion worth of properties nationwide, affecting 711,682 families or 6,243,988 people in ten (10) regions in Visayas and Mindanao. Most of these families were displaced in evacuation shelters, not having access even to the most basic needs of food, clothing and shelter.

Through MAT 5A & B headed by area manager Mr. Samuel Ang, Pacific Paint (BOYSEN) Philippines, Inc. (PPBPI) provided assistance in the form of relief goods, medicines and temporary shelters. The contribution was handed-over through three (3) separate relief operations:

December 4, 2012: Assisted by Arch. Omar Payumo, goods, medicines, sakoline tents for temporary shelter and T-shirts were distributed to the families at Baganga and Cateel, Davao Oriental.

December 19, 2012: Assisted by Engr. Jufrey Zaragosa, relief goods were handed over to Compostela Valley (COMVAL) Governor, Hon. Chiongkee Uy.

January 7, 2013: Officiated by President of Philippine College of Physician (PCP) Southmin Chapter, Dr. Romulo T. Uy, medicines were donated for the organization's continuous medical missions in various affected areas. The same have been used for their mission last January 10, 2013 within the areas of Camanlangan, New Bataan and COMVAL province.

Guided by the value of nation building, PPBPI together with MAT 5A & B hopes that, through these efforts, they have provided the people with moral support and inspiration needed to continue rising and rebuilding their communities. 🛠️



Norie Jay Mulato of BOYSEN Paints MAT 5B distributing relief goods in Davao Oriental.



BOYSEN Paints through its Marketing Area Team 5B (MAT 5B) headed by area manager Mr. Samuel Ang (third from left) hands over the donation to Gov. Arturo Uy of Compostela Valley.



Boysen area manager Mr. Samuel Ang (third from left) during the official turn-over of medicines for the victims of Typhoon Pablo with Mr. Romulo Uy, president of Philippine College of Physicians-Southern Mindanao chapter.

# The Seven Habits, A Practical Summary: Habit 6 – Synergy

(Excerpts from the article written by Sid Kemp)

## Synergy - The Sound of Music

Alone, a man or a woman can live, at most, about a hundred years. Together, men and women create a species that lives for millions of years.

A person, alone, can sing. A person with a musical instrument can drum, or play flute, or play harp, and create harmony in so many ways. A group of people with voices and musical instruments can form a choir, a symphony orchestra, a rock band. They can follow a score, or jazz it up with improvisation.

All great human achievements come about through synergy, or, to be more precise, positive synergy.

## Positive and Negative Synergy

Two angry men get into a fistfight. When we get together in groups and allow government to direct our thinking, those two angry men can launch a war that kills millions. There are many other kinds of cultural and systemic oppression, prejudice, and hatred that last for decades, centuries, and millennia.

A happy marriage is a wonderful thing. A miserable marriage can feel like an inescapable trap. A good business partnership flourishes. Many business efforts fall into a mess, dragging good people and good talent with them.

As the late Stephen Covey discusses in Habit 6 of The 7 Habits of Highly Effective People, positive synergy is what it is all about, but it is incredibly difficult to achieve and sustain. Negative synergy is what we are stuck with when we try for positive, and it

doesn't work.

## Energy and Synergy The Power Inherent in Synergy

We really begin to understand the 7 Habits when we think about how much energy we have in life, and how much energy we put into what we do.

How much life energy goes into creating a great symphony orchestra, maintaining it for a century, and creating, playing, and enjoying all that music? How much joyful power is there?

How much life energy goes into creating, selling, and using addictive drugs? How much waste of human life is there?

Positive synergy is what we get when parts work together as a whole. Picture an 18-wheeler carrying 50,000 pounds of goods across the country.

Negative synergy is what happens when the same parts don't work well together. Imagine the truck engine seizing, the truck jackknifing, people dying.

There are two key points here:

- The more parts to the system, the more ways it can go wrong. A truck requires more precision engineering and better driving than a car.
- The more energy in a system, the worse damage when it does go wrong. When a truck flips over, there's a lot more destruction than when a car loses control.

## It's Not Just About Crashes

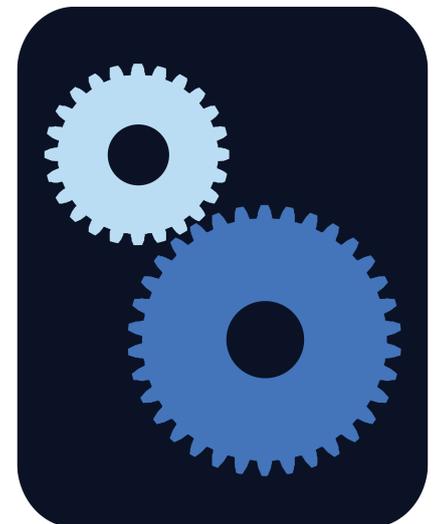
The damage is not just in accidents. As people, we tend to trap ourselves in unhealthy habits, damaging relationships,

and destructive social patterns. Then the excess energy of the system hurts people, and goes on hurting.

Some of the hurting shows up as obvious destruction, such as the million or so people who die each year in car crashes worldwide. Some of it shows up more subtly, in the lost creativity and joy, for example, for both men and women, through sexual stereotyping and the limiting of human potential based on bias and prejudice.

Take a look around us: How easy it is to do harm. How challenging it is to create lasting beauty and wonder, health, joy, and peace. 🍷

*To be continued next issue...*



**SOURCE:**  
<http://sidkemp.hubpages.com/hub/The-Seven-Habits-A-Practical-Summary-Habit-6-Synergy>