# CERMIC PRO® Nanotechnology as a lifestyle

NanoShine is a manufacturer of coatings for all surfaces, originally devoted to providing industrial-grade coatings to the construction industry. Now NanoShine offers products for both industrial and household use.

In 2010, the Ceramic Pro range began with a series of protective coatings suited for example the automotive, aviation and maritime industries. The can be applied on surfaces such as paint, glass, alloy, fabric, leather, plastic and rubber.

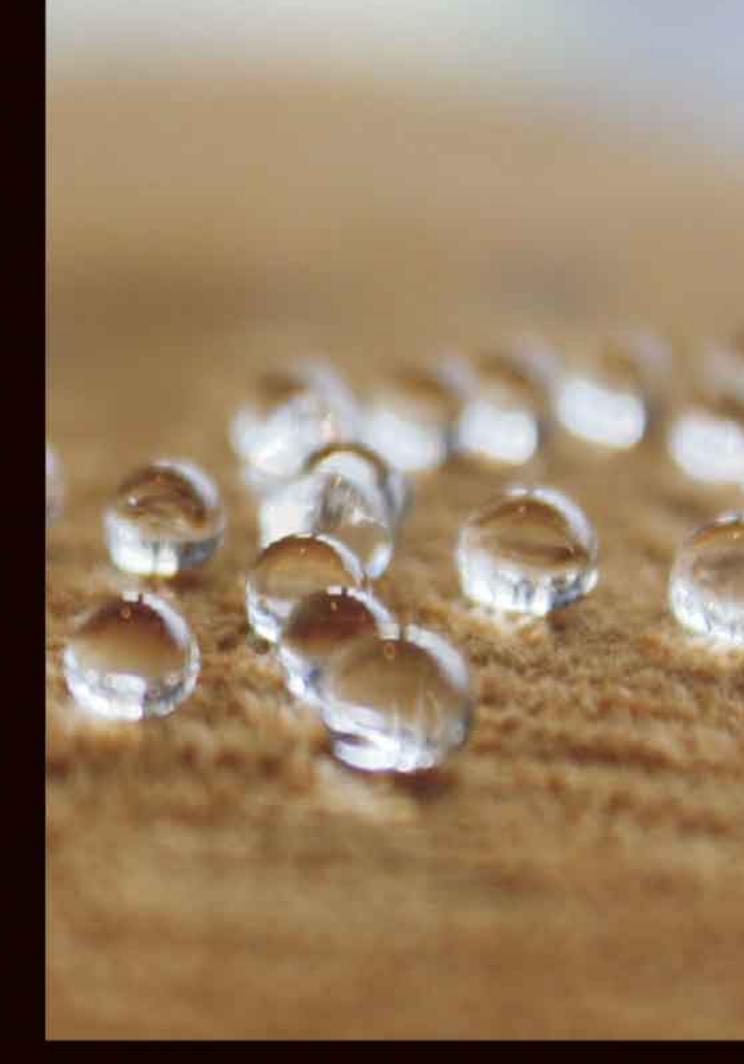
The Ceramic Pro range are formulated by our qualified chemist with high level of experience in the industrial protective coating field. Ceramic Pro has been formulated for any substrates and is always undergoing continued development and testing for new and improved versions to take the coating industry to new levels.

Ceramic Pro coatings have a unique ceramic molecular compound formula (nano-ceramics), with new formulas constantly being tested to make them the most advanced protective coatings on the market.

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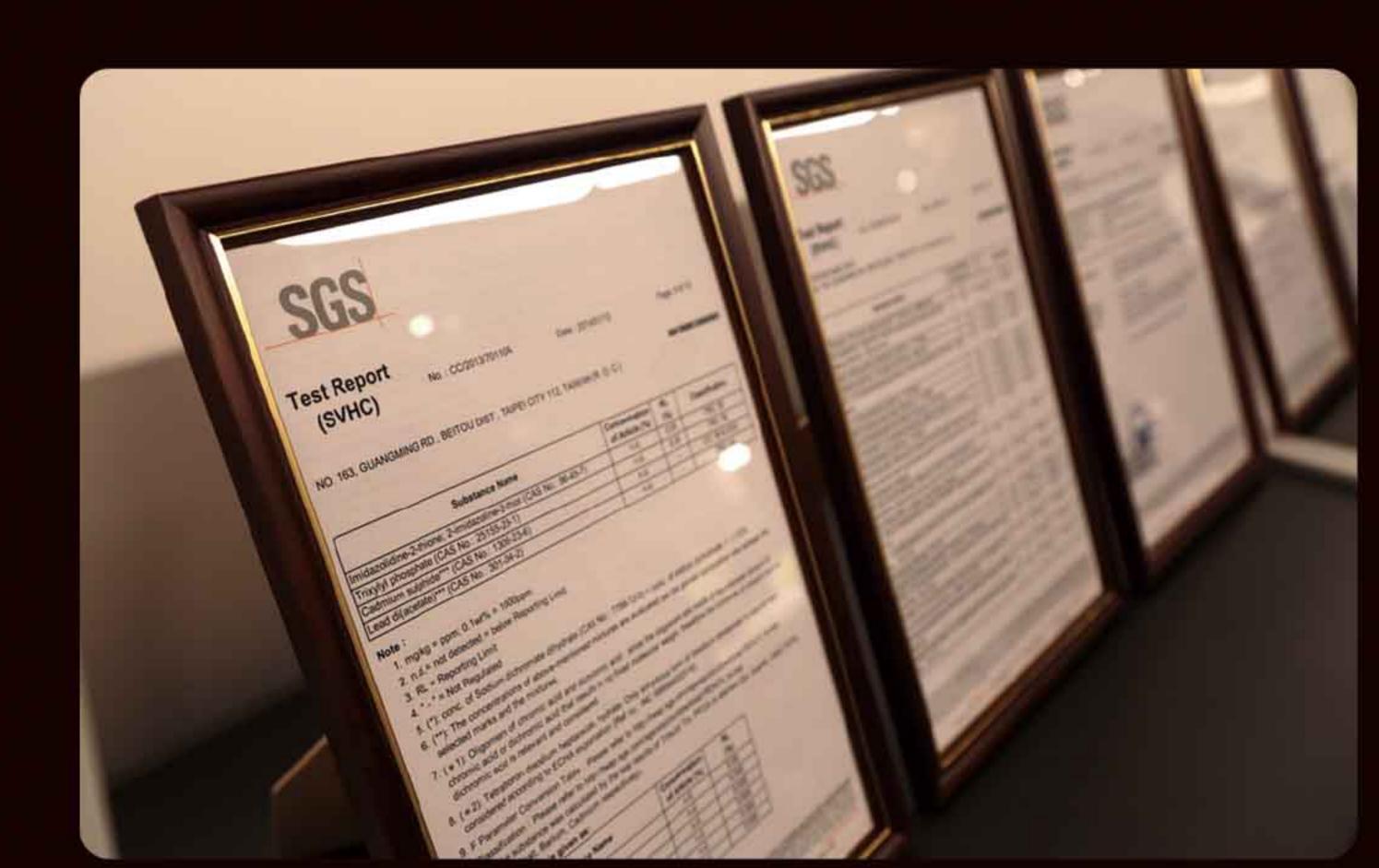








Competing with the worldwide coating manufactories, NanoShine has and continues to exponentially accelerate its development and production of world class coating technology.



The product properties of Ceramic pro has been tested and certified by SGS Labs and meet the REACH regulations.











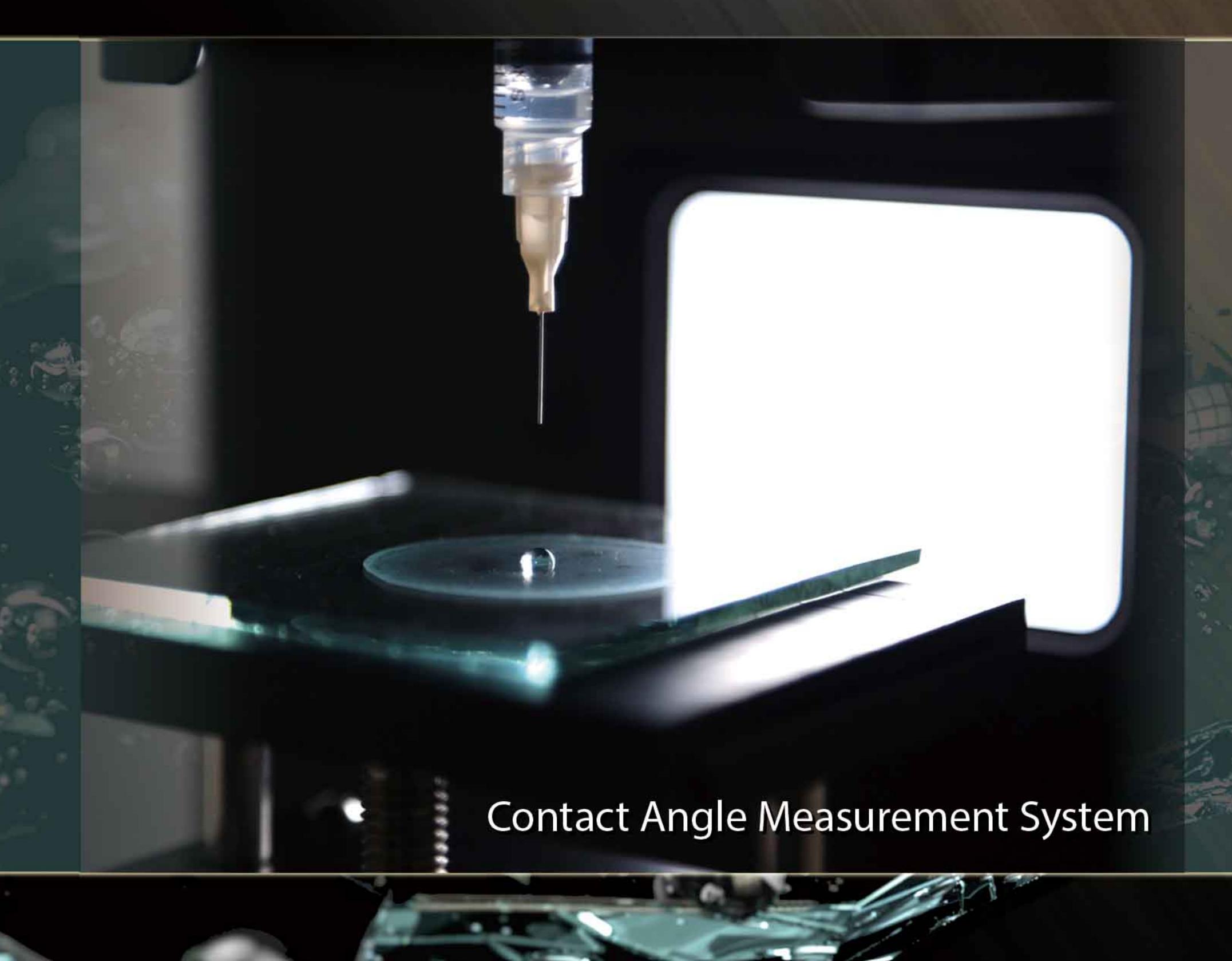


# CRMMC PRO®

Ceramic Pro Strong technology is based on Nanoshine Group's rich experience in the photoelectron semiconductor industry. It transforms a solid-state glass material into a transparent fluid material.

When it interacts with the humidity in the air, the material reverts to a solid-state.

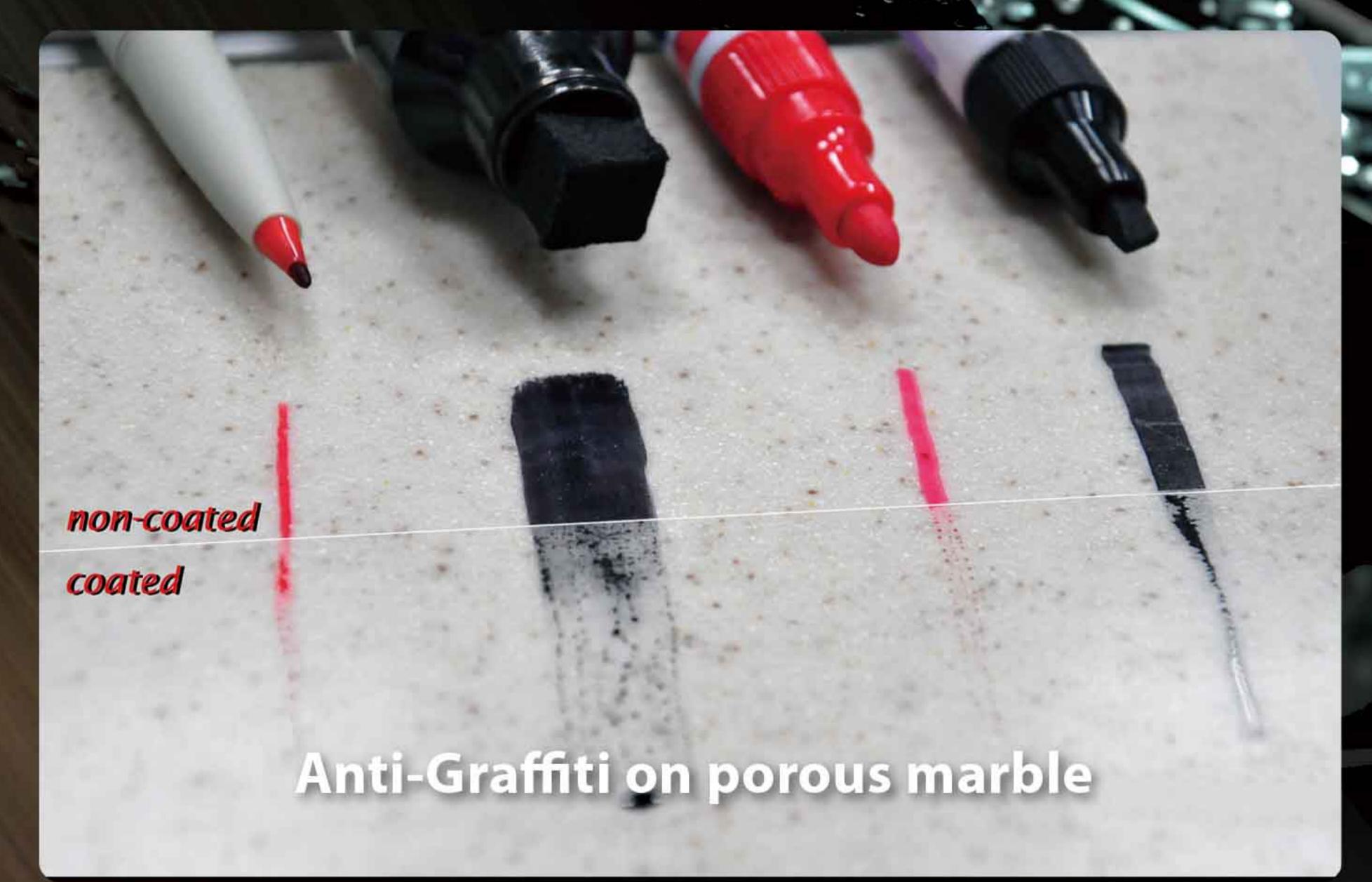
Ceramic Pro Strong is a powerful coating for industrial applications. Its nano molecular matrix structure greatly increases the coated surface's hardness and lends it an anti-scratch property.





non-coated coated

Copper Panel in 60 months



The hardness grade can reach up to a 9H level, depending on the coated material.

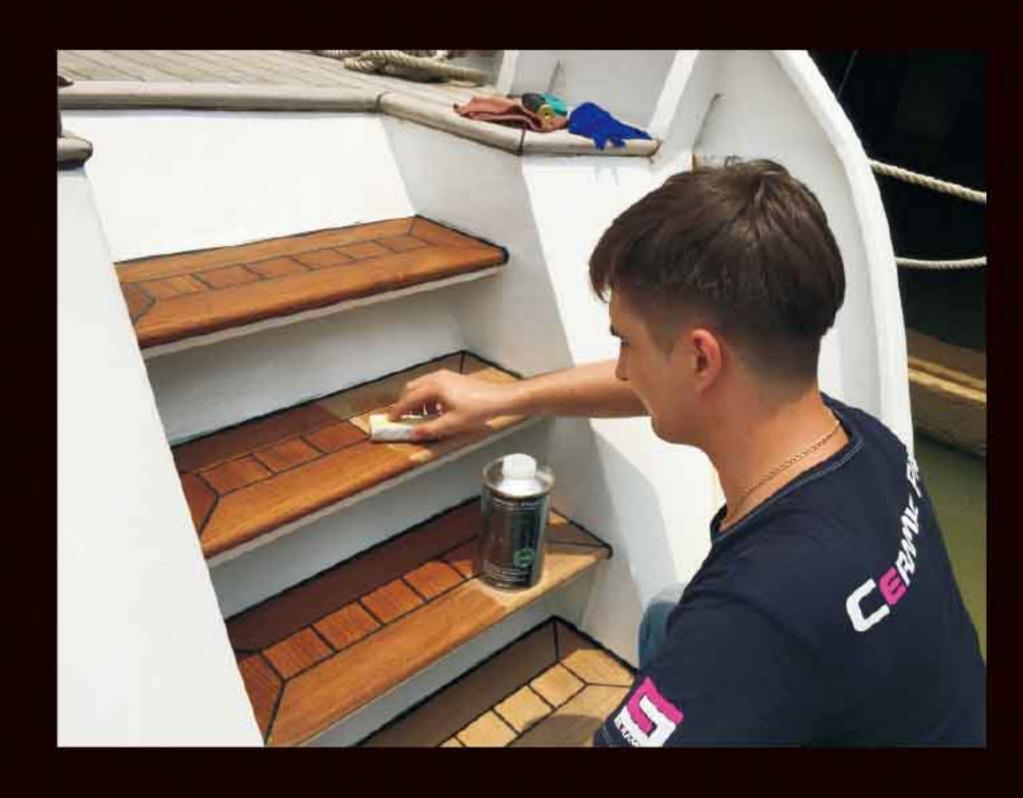
It gives the surface a lotus effect – the coated surface becomes hydrophobic and self-cleaning. It also protects the surface from corrosion from acids, basis and saline solutions.



Ceramic Pro Strong is easy to be applied by spraying, brushing and dipping on the substrate

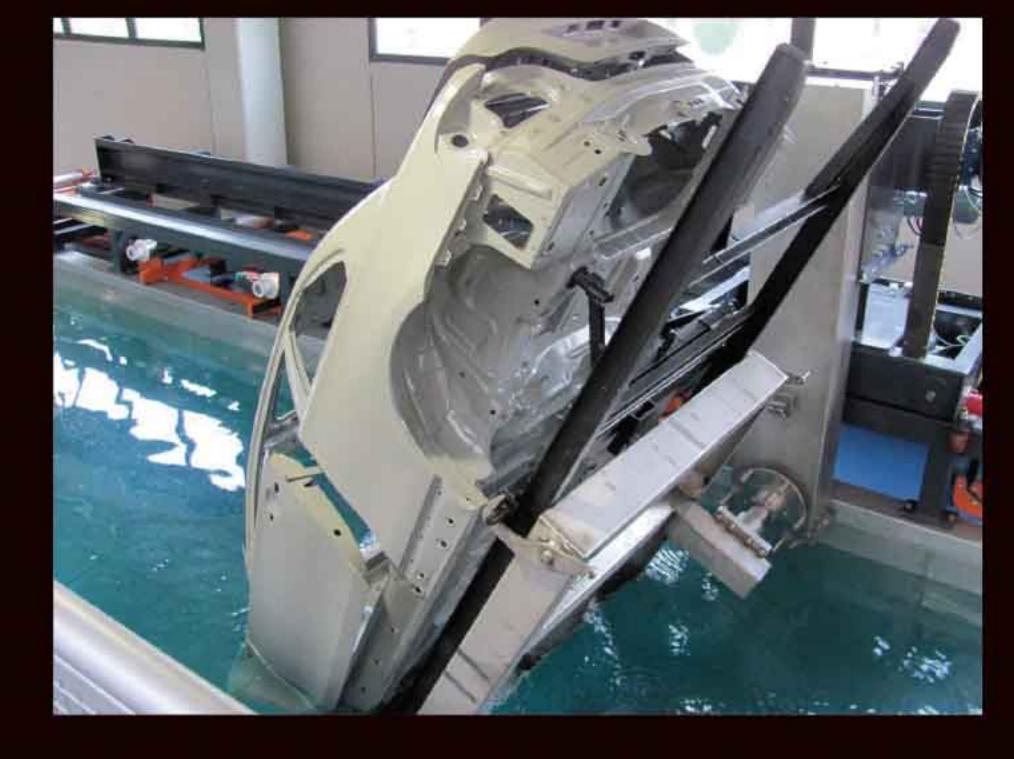


Spraying: This will result in an even thickness and a smooth surface. A dust-free environment is recommended during application.



Brushing & Rolling: This will result in a thicker layer, but streaks might be visible. This method is recommended for applications where a protective coating is needed. It's especially useful for applications in public buildings and areas, for instance to prevent graffiti and common vandalism.





Dipping: This method results in the thinnest layer, while still being very smooth. A dust-free environment is recommended during application.

### Ceramic Pro Strong Specification



		Ceramic Pro Strong
		Solvent Base
Air Cure	Surface Dry	25°C,1-2hours
	Full Dry	25°C,3-5days
Thermal Cure(Oven)		130°C,30minutes
		200°C,10minutes
Application	Wiping	X
	brushing	V
	dipping	V
		(Clean Room Required)
	spraying	V
		(Clean Room Required)
Pencil Hardness		Up to 9H
Thickness of Coating		Up to 30 micron
Viscosity(#2 Zahn Cup,Cup measurement method)		14 seconds
Applicable Material		Metal,Stone,Wood
Standard Consumption (By spraying on non-porous surface)		900 cm2/ml



### FOR CONSUMER ELECTRONICS

# Challenge Of Electronic Devices

From our television to our computers and tablets to our smartphones, consumer electronics play an important role in our modern lives.

These devices help fill our daily life entertainment, but because of their delicate electronic components they tend to be fragile and very susceptible to moisture, and electrostatic discharges.

Their shells are often made of plastic, alloy and metal for better functionality and design, often resulting in scratches and fingerprints.





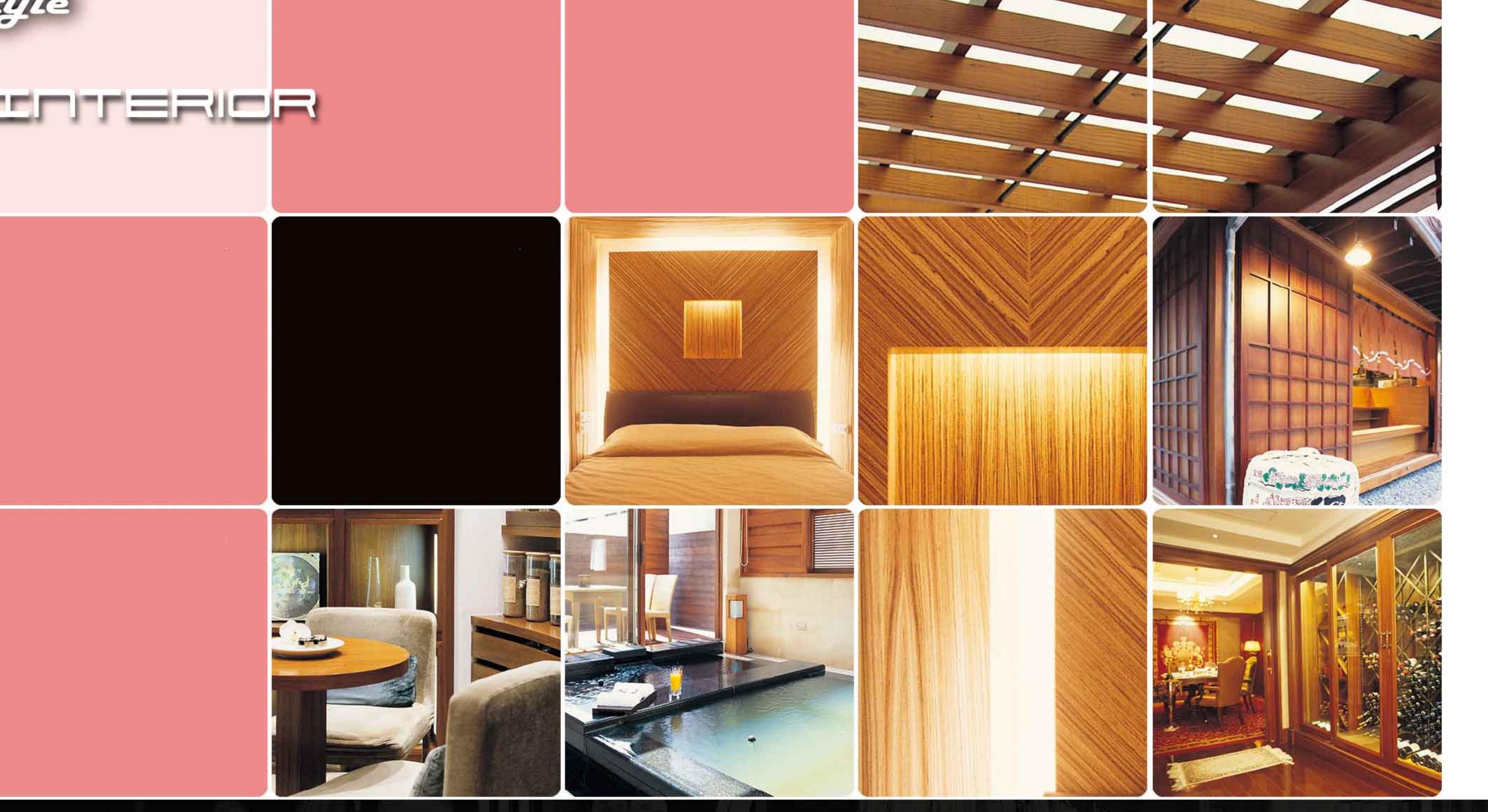




FOR FURNITRE & BINGER









An indoor environment will slowly affect furniture and interior materials such as decorative objects and walls.

It is the constant change in humidity and temperature, which could tear leather and possibly cause mold and moss to spread across a variety of materials.

Other factors such as accidental scratching and daily abrasion will also slowly wear down leather, stone, metal and other materials.



Our proven technology can seal the substrate, preventing the accumulation of humidity on the substrate and air contact.

The solution will also reduce the surface energy, leading to superior hydrophobic effect, which helps stop mold and moss growth.

Up to 9H hardness increases the substrate's overall resistance from scratching and abrasion, greatly extending the durability of the furniture and interior materials.









# CERMMIC PRO® Wanotechnology as a lifestyle

FOR PUBLIC SPACE & OUTDOOR
INSTALLATION

We See Them
We Use Them
But They Need Replenish Frequently

Outdoor installations are all around us, in categories ranging from recreation, illumination, art and many more. These installations must endure and withstand the outdoor environment for a long time, but not even stainless steel can stand such conditions.

Rain will also leave unsightly stains. Public spaces also include indoor environments, which must endure, among other factors, daily abrasion, drink spills, graffiti or even intentional damage. All this results in a constant need for maintenance.





## Proven Solution Works

When Ceramic Pro Strong has dried, it becomes a thin, transparent glass-like layer. This layer seals the substrate renders it unsusceptible to weathering and moisture.

The hardness scale of up to 9H protects the surface from daily abrasion, while the extraordinary hydrophobic effect makes it invulnerable to graffiti.

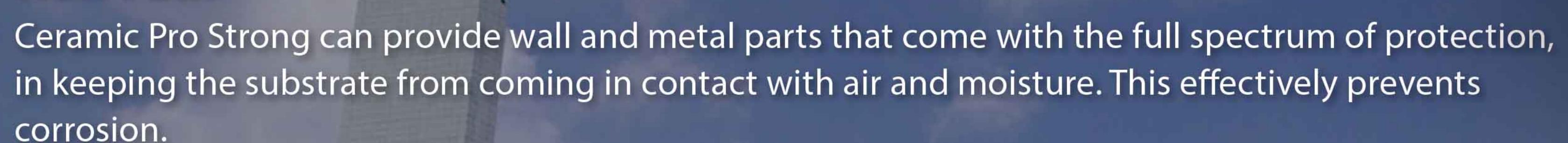
### FOR BUILDING & INFRASTRUCTURE

© Climate, Saline And Indutrial Emission

CERAMIC PRO The construction industry and city infrastructures are the backbone of society Nanotechnology as a lifestyle and economy. They provide us with shelter and make communication more efficient. However, they are exposed daily to sunlight and weathering. Furthermore, acid rain can cause additional damages on walls, metal, or even stainless steel. All of this leads to an unavoidable maintenance cost.



### New Path



Regardless of the amount of salinity in coastal areas or industrial districts, Ceramic Pro Strong ensures that the substrate always keeps its best condition. Paired with the tough hydrophobic effect, it also enables a self-cleaning effect, and only one shower of rain will remove all stains.







### FOR VEHICLE

### Without vehicle we are limited

For a long time, we were restrained by distance and a lack of communication tools, while humanity was limited to smaller and closer-knit social groups.

Aided by technological innovation and economic advancement, motorized vehicles help us find new opportunities every day. There are different types of vehicles, ranging from cars to large construction machines.





# Strong Versalities Solution

To protect large vehicles, our industrial-grade solution provides absolute protection for bulldozer, tractors, pile drivers, excavators or other kinds engineering vehicles and devices.

Ceramic Pro Strong makes them even tougher.



Non-Coated

Coated







## **Beyond The Cost**

Public transportation is essential to everyday life and its development. To have a functioning public transport infrastructure directly affects the economy and productivity.

A poorly planned system can offer access to recreational and social activities. However, due to an increasing number of commuting passengers, it often faces failures and delays, and sometimes also intentionally damage. Additionally, it must endure weathering and city emissions.







### Steel Plate in 24 Months



# Cost effective High Performance Solution

Ceramic Pro Strong can cover whole trains, buses, or other transportation means with a thin transparent glass-like layer, which comes with a superior hydrophobic effect. It also makes the surface easy-to-clean; even graffiti can be removed easily. The chemical resistance capability of Ceramic Pro Strong defect most outside effects, even acid rain or other dense emission. Up to 9H pencil hardness keeps the coated areas scratch-free, greatly reduce the maintain efforts as a result.



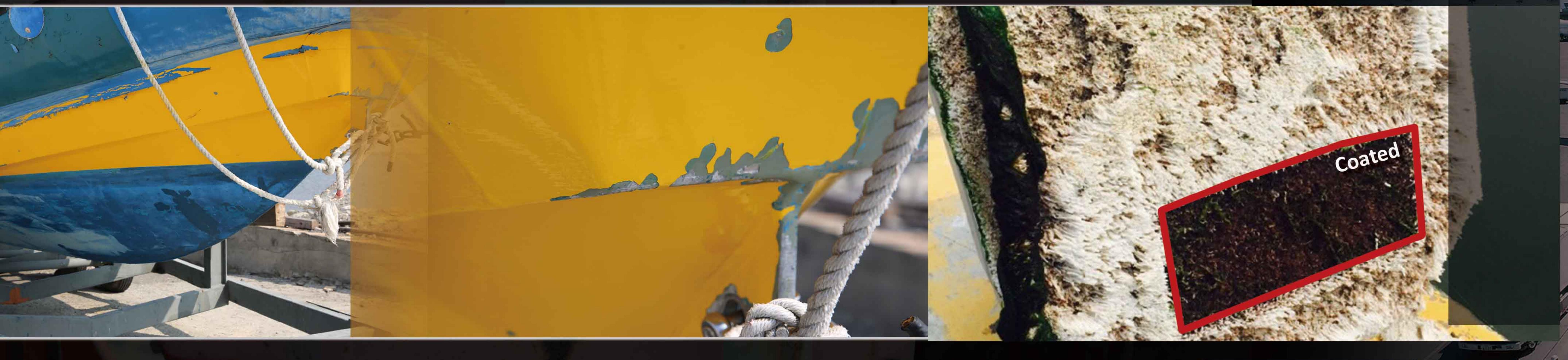
Diverse And Complicated Industries

Report Aviation and maritime implementations occur in various fields, including Nanotechnology as a lifestyle indoor and outdoor applications, ranging from hulls, interiors, exteriors and engineering materials. These are different from buildings, for instance, because they take on other roles, such as transportation, utilities, living. They are complicated industries, and the maintenance in is an enormous undertaking.





FRP Non-Coated Organism Fouling



An aircraft's fuselage needs to be routinely maintenance. It has become a very specialized field, since day-to-day needs include cleaning the jet engine emission residue or bird strike residue on the fuselage's surface, and other effects caused by weathering. Underwater fouling presents a big issue to the maintenance of ships and boat. On top of looking ugly, they cause unwanted fuel consumption due to drag. If not remedied in a timely manner the ship's hull can sustain great damage.

## Bio-Friendly Solution

Ceramic Pro Strong will form a transparent glass-like layer on the substrate, which decreases the surface energy greatly, so that marine organisms cannot stick to the surface. It also makes stains and residues easier to remove from the surface. Both a ship's hull and a fuselage could benefit from such properties.



For the last fifty years, Tributyltin, TBT, has been considered the best anti-fouling paint in underwater conditions. With the help of scientists' monitoring and researching efforts, we now learned that, the highly toxic TBT severely contaminates the global marine biology. It has now been banned for use at Rotterdam convention of the International Maritime Organization in 2008.





FOR REDEBLE EDERCY





Hydrophobic Effect

Steel Plate In 24 Months

# Hazardous Environments And Equipment

Parallel to a steady population growth, the global energy demand increases just as quickly as the greenhouse gases that power plants emit. Compared to traditional energy sources, renewable energy provides clean and perpetually replenishable power. Yet, these facilities and plants require persistent maintenance, and they endure sometimes harsh weather conditions. Corrosion causes difficulties to tidal energy, or hydropower, and geothermal power generators. Weathering and unwanted particles in the air are the Achilles heel of wind power and solar power. Most of the high cost to create renewable consists of maintenance.



# Advantage Of Liquid Glass Technology

Ceramic Pro Strong will form a thing transparent glass-like layer, which can withstand temperatures of up to 750 Celsius. It is also impenetrable by acid or saline substances, regardless if it is the turbine of a hydro plant or a generator in a geothermal plant. Considering all these factors, Ceramic Pro Strong keeps every surface corrosion-free. Our case-studies have proven that the maximum output efficiency of solar panels, in conjunction with the hydrophobic effect and the self-cleaning property, will not be affected in any way.



# Overall Equipment Effectiveness And Attrition

Heavy industry is the foundation of modern civilization, with its branches ranging from energy generation, extraction of raw materials, metal production, chemical industry and many others. These form the backbone of any nation. In contrast to end-user oriented industry, most of the facilities and equipment are exposed to the outdoor environment for easier module modification and management. Looks should be less of a priority than durability.

# FOR HERVY INDUSTRIAL & POWEPLANT

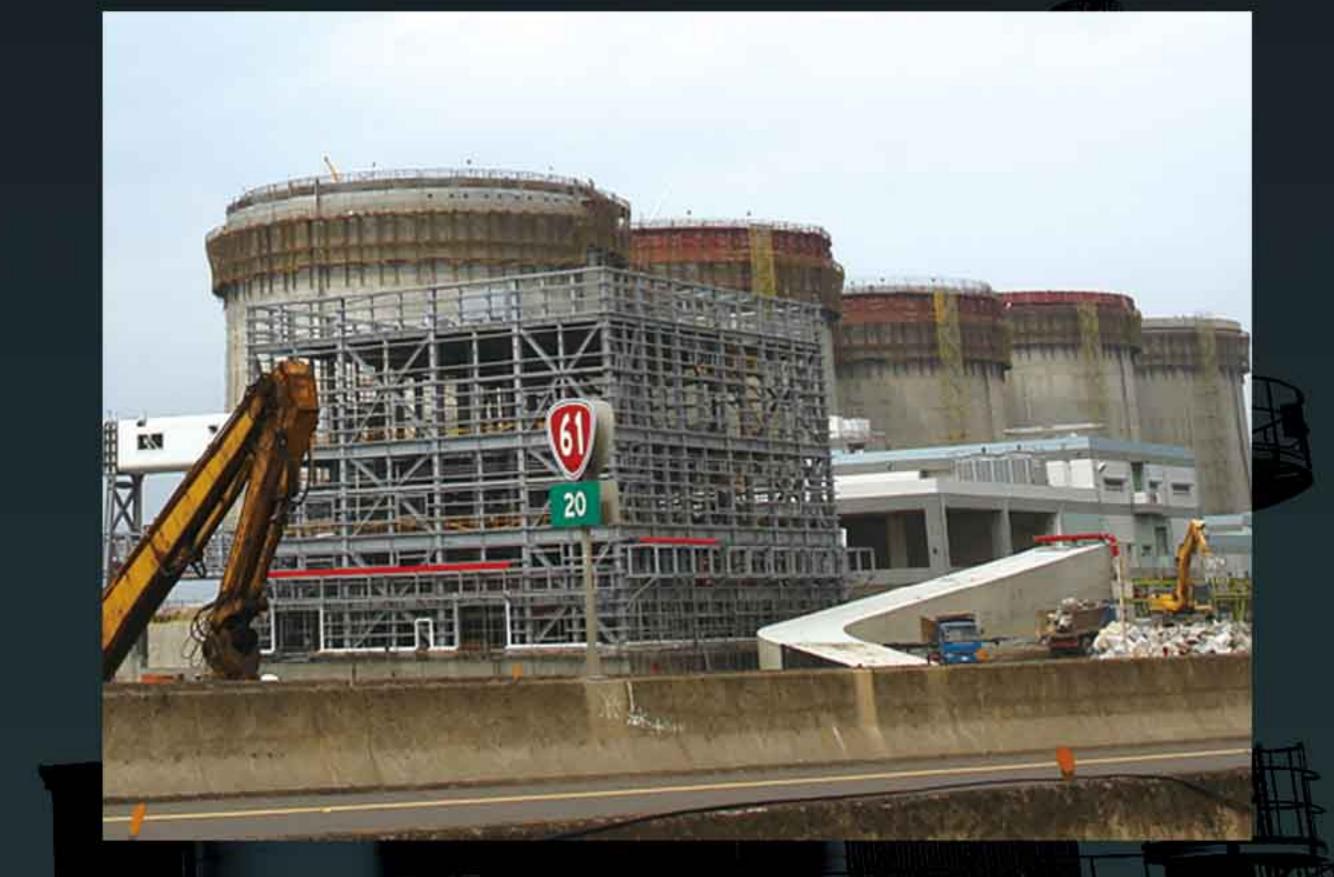


# A smart solution to maintain total effective equipment performance

Protection by Ceramic Pro Strong is tough. It completely prevents exposure of facilities and equipment to air, keeping weathering and moisture at a minimum. The glass-like protection layer is invulnerable to acid/alkaline and harsh chemicals, even potential emission damages from high-density industrial clusters. The working temperature of Ceramic Pro Strong allows usage in up to 750 Celsius.







As presented in all these example, Ceramic Pro Strong greatly increases overall durability and lifecycle of any facility, equipment and device.



# NOSHINE LTD

Nanotechnologies, as style of life www.nanoshine-group.com