

# NANO-CERAMIC®

WWW.NANO-CERAMIC.COM ARCHITECTURAL PRO COATINGS



**Military**

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## What makes NANO-CERAMIC Permanent Coating System so durable?

NANO-CERAMIC permanent coating system is the latest generation of protective coating which transforms paint into a hard ceramic, providing superior scratch resistance and near-permanent protection for all exterior or interior surfaces.

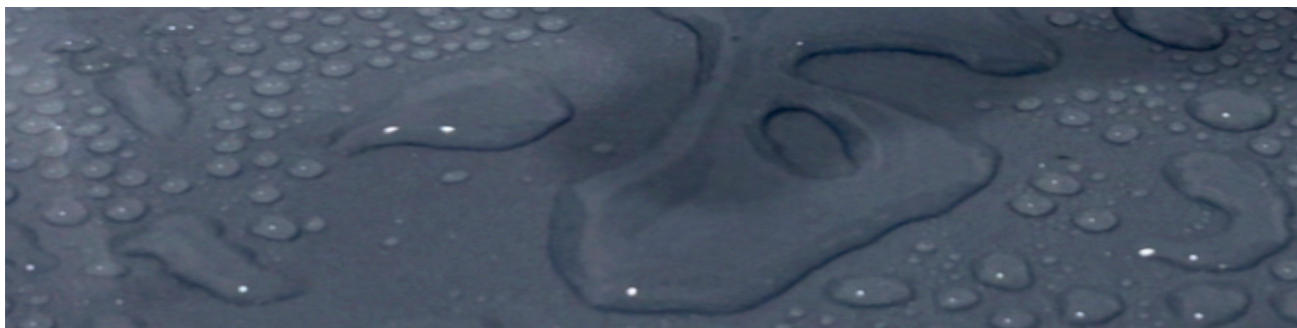
NANO-CERAMIC permanent coating system is 300°C resistant and more than 4 times stronger than traditional acrylic based paint finishes, and is effectively preventing damage that would otherwise affect the appearance and integrity of the original surface.

## Zero Maintenance for decades to come!

Our NANO-CERAMIC permanent coating system is rigorously tested by an independent testing laboratory according to the European standard for outdoor paints (EN 1504-2) as per test report page 19 as here below.

## Can NANO-CERAMIC Permanent Coating System be applied on any surface?

The NANO-CERAMIC permanent coating system can be applied directly or indirectly on all kinds of interior and /or exterior surfaces (absorbing and non-absorbing), such as concrete, steel, wood, acrylic, gypsum and many more.



## Is NANO-CERAMIC Permanent Coating System self-cleaning?

NANO-CERAMIC permanent coating system provides a permanent hydrophobic surface that is self cleaning, easier to clean and stays cleaner longer as water and dirt can not penetrate the ceramic layer. NANO-CERAMIC permanent coating system is resistant to water vapor and water absorption.

## Can our hydrophobic coatings increase acceleration time and speed while simultaneously reducing fuel consumption?

Yes, the superhydrophobic surface has a good drag reduction effect, and the maximum drag reduction rate is up to 23.4%.

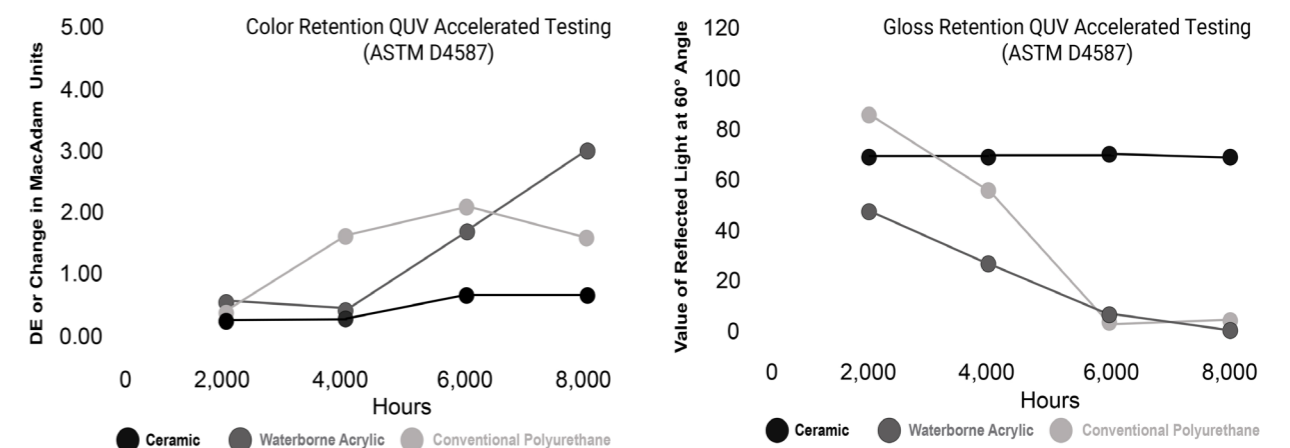
In a new analysis from IPTEK ITS 2023 concerning Drag Reduction, the following conclusions have been obtained. It was found that there was an increase in acceleration due to drag reduction on the ship model treated with a superhydrophobic coating, showing a 31% improvement compared to the non-coated surface and a 27% improvement compared to a conventionally anti-fouling coated surface.

As published in the International Journal of Marine Engineering Innovation and Research. Click [here](#) for the IPTEK analyses.

## Other paints are simply not suitable for longterm harsh outdoor environments.

In order to avoid poorly maintained properties (concrete rot, chipped and weathered paint, etc) for the next decades, our Permanent Coating System is simply the best solution to keep the value of your investment in place.

## Superior in Color & Gloss Retention



## A special selection of high grade tinting chemicals computerized dispersed in a superior ceramic resin.

Conventional gelcoats are a mixture with Epoxy or Polyurethane resins, of which the quality of resin and pigments are the most important factor in the ultimate strength. Most have a lifespan of 15 years, with hardness, color and gloss retention (sun fading) and manual mixing towards consistent quality being the most common problems in keeping the desired object at an aesthetically pleasing level.

### Quality Comparison with traditional coating/paints.

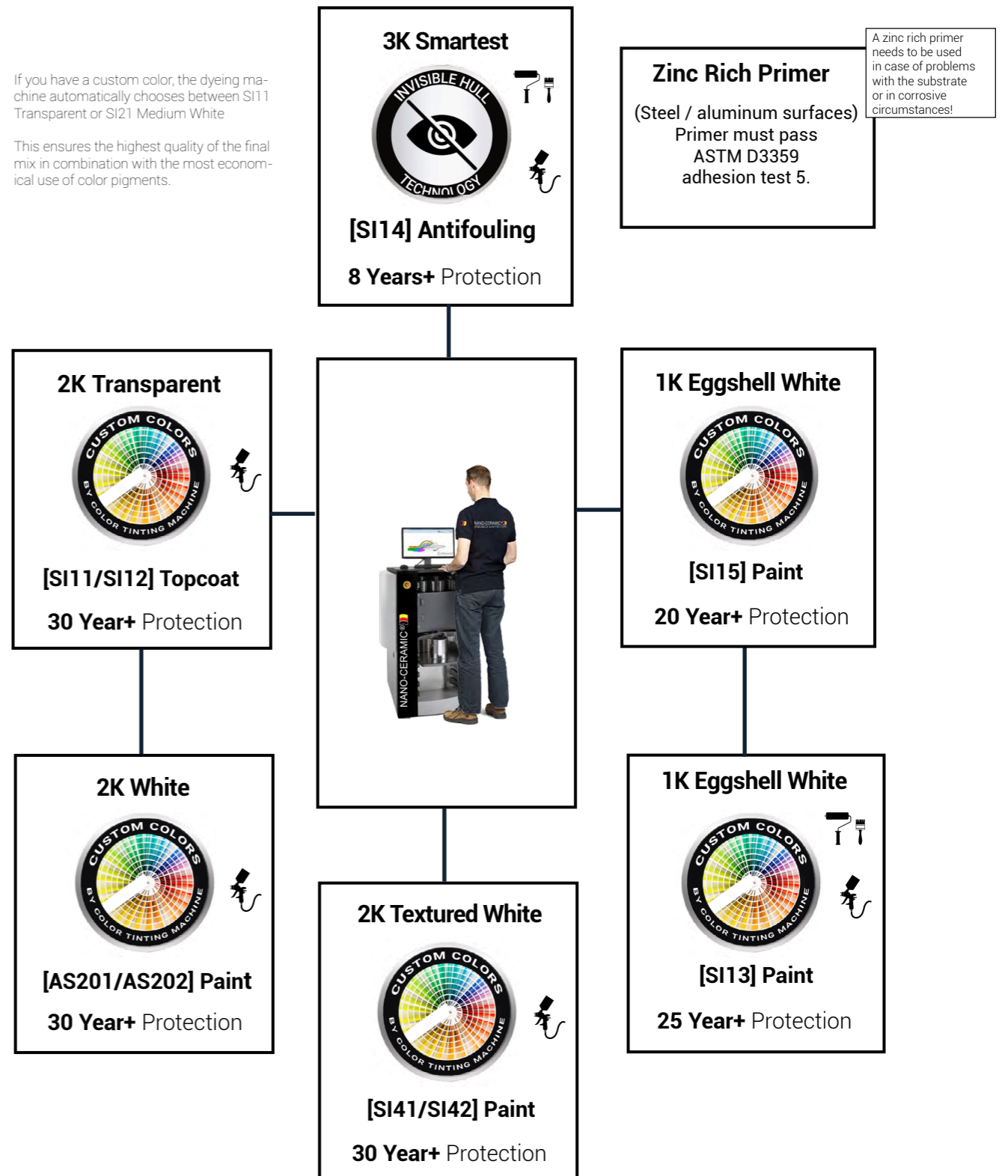
In case written in bold font it means existing shortcomings in quality.

Characteristics	Acrylic	Epoxi	Polyurethane	Ceramic
Primer	<b>Yes</b>	<b>Yes</b>	<b>Yes</b>	No
Adhesion Strength	<b>Poor</b>	<b>Poor</b>	<b>Poor</b>	Excellent
Cross Cut Test	<b>Poor</b>	Good	<b>Poor</b>	Excellent
Abrasion Resistance	<b>Poor</b>	Good	<b>Poor</b>	Excellent
UV Radiation Resistance	<b>Average</b>	<b>Poor</b>	Good	Excellent
Artificial Atmospheric Agents	<b>Poor</b>	Good	Good	Excellent
Colour Retention	<b>Average</b>	<b>Average</b>	Poor	Excellent
Gloss Retention	<b>Poor</b>	<b>Poor</b>	<b>Poor</b>	Excellent
Chemical Resistance	Good	Good	<b>Poor</b>	Excellent
Severe Chemical Attack	<b>Poor</b>	<b>Average</b>	<b>Poor</b>	Excellent
Temperature Resistance	<b>91°C</b>	177°C	263°C	300°C
Thermal Shock Resistance	Good	<b>Poor</b>	Good	Excellent
Carbon Dioxide Permeability	<b>Poor</b>	Good	<b>Poor</b>	Excellent
Permeability water vapour	<b>Average</b>	Good	<b>Average</b>	Excellent
Water Absorption Resistance	<b>1%</b>	<b>2%</b>	<b>3%</b>	0%
Aging at 70°C	<b>Poor</b>	Good	<b>Average</b>	Excellent
Adhesion Strength Pull-off	<b>Average</b>	Good	<b>Poor</b>	Excellent
Impact Resistance	<b>Average</b>	Good	<b>Poor</b>	Excellent
Anti-Graffiti	<b>No</b>	<b>No</b>	<b>No</b>	Yes
Anti-Termite (Wood)	<b>No</b>	<b>No</b>	<b>No</b>	Yes
Hydrophobic Self Cleaning	<b>No</b>	<b>No</b>	<b>No</b>	Yes
Easy to Clean	<b>No</b>	<b>No</b>	<b>No</b>	Yes
Total Solar Reflectance (TSR)	<b>60</b> (white)	60 (white)	<b>60</b> (white)	88 (white)
Expected Lifetime in Years	<b>&lt;7</b>	<15	<15	30+

## Ceramic Coating & Paint System

If you have a custom color, the dyeing machine automatically chooses between SI11 Transparent or SI21 Medium White

This ensures the highest quality of the final mix in combination with the most economical use of color pigments.



# SI11/SI12 2-Component (2K)

## Topcoat Transparent for glossy or matte surfaces

- Article** : SI112000 2L / 1.900gr Transparent Gloss  
SI122000 2L / 2.000gr Transparent Matte
- Consumption** : 3 layers +/- 270gr/m<sup>2</sup> - 285ml/m<sup>2</sup> 75 micron = 7m<sup>2</sup>
- Reachable area** : 2 layers +/- 180gr/m<sup>2</sup> - 190ml/m<sup>2</sup> 50 micron = 14m<sup>2</sup>  
: 1 layers +/- 90gr/m<sup>2</sup> - 95ml/m<sup>2</sup> 25 micron = 21m<sup>2</sup>
- Hardness** : H9
- Used for** : The system can be applied directly or indirectly on all surfaces (porous and non-porous) such as concrete, steel, wood, acrylic, gypsum, painted or unpainted surfaces, indoors, or outdoors.
- Application area** : Buildings, airports, offshore structures, bridges, tunnels, hotels, private housing, etc.












How to use: Page 20

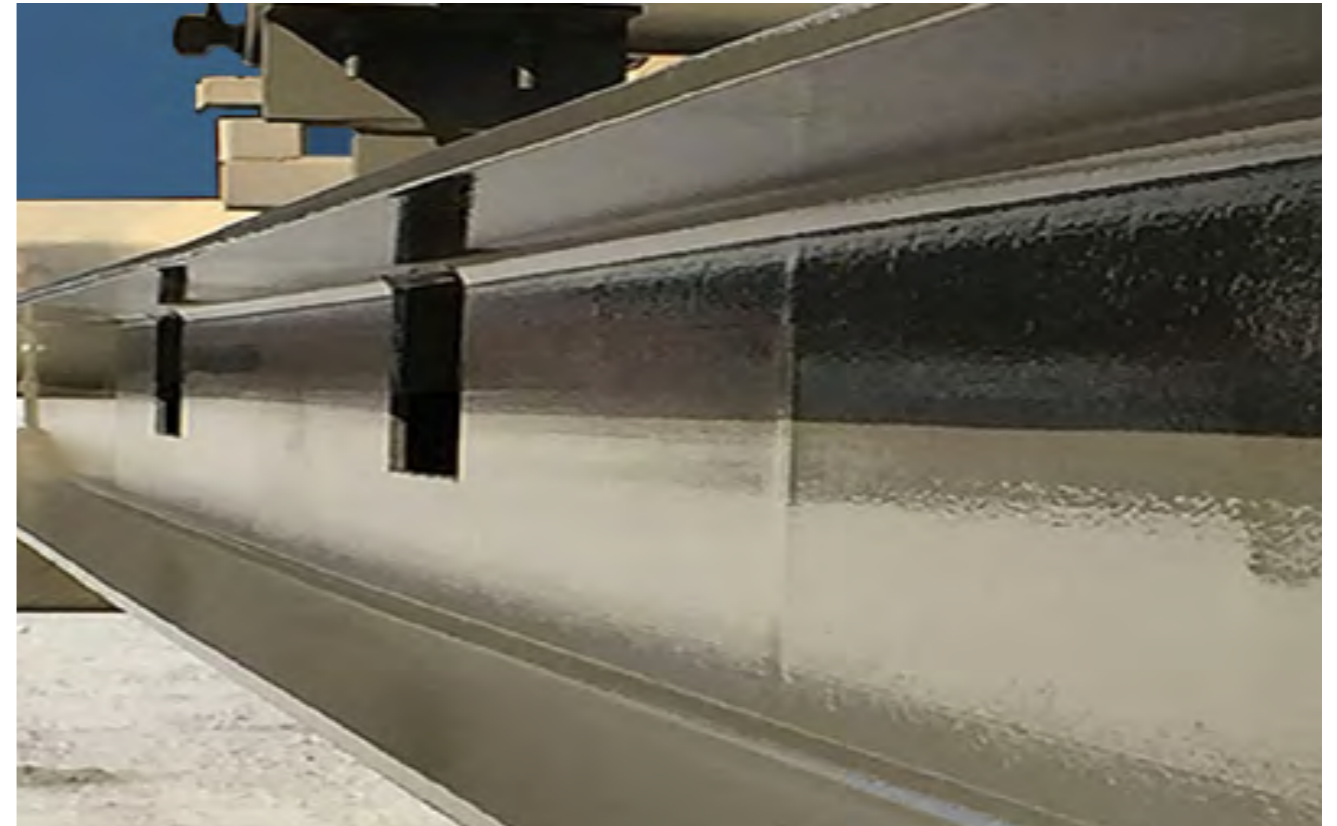
SI11/SI12 is an incredibly strong 2-component paint system which forms a durable matrix of molecular bonds (transformation to ceramic) resulting in permanent protection of the surface.

Three simple steps: Clean, Dry, and Apply.

- Easily repels water, dirt, dust, and pollutants.
- This coating is permanent hydrophobic
- Restores damaged finishes and reduces cleaning intervals.
- Resistant to all kinds of chemicals and UV radiation.
- Superior anti-pollution and anti-corrosion properties.
- This coating can withstand temperatures of 300°C. suitable for making walls fire retardant and is most best solution to make rooftops waterproof

Expected life duration up to 30 years+.

-  **Near-permanent**
-  **Anti-corrosion**
-  **Permanent hydrophobic**
-  **Anti-pollution**
-  **Anti-algae**
-  **UV protection**
-  **Self-cleaning**  
**Stays cleaner longer**
-  **Impact Resistance**  
**1kg / 2lbs**
-  **Thermal Shock-Resistant**



## Permanent Hydrophobic - Self Cleaning



# SI21/SI22 2-Component (2K)

## Paint Strongest White for glossy and satin surfaces

<b>Article Nr.</b>	: SI210000 2L / 2.400gr SI220000 2L / 2.500gr
<b>Consumption</b>	: 3 layers +/- 200gr/m <sup>2</sup> - 165ml/m <sup>2</sup> 90 micron = 12m <sup>2</sup>
<b>Reachable area</b>	: 2 layers +/- 130gr/m <sup>2</sup> - 110ml/m <sup>2</sup> 60 micron = 16m <sup>2</sup> : 1 layer +/- 65gr/m <sup>2</sup> - 55ml/m <sup>2</sup> 30 micron = 24m <sup>2</sup>
<b>Hardness</b>	: H9
<b>Used for</b>	: The SI21 system can be applied directly or indirectly on all surfaces (porous and non-porous) such as concrete, steel, wood, acrylic, gypsum, painted or unpainted surfaces, indoors, or outdoors
<b>Application area</b>	: Buildings, airports, offshore structures, bridges, tunnels, ships, tanks, vehicles, etc.



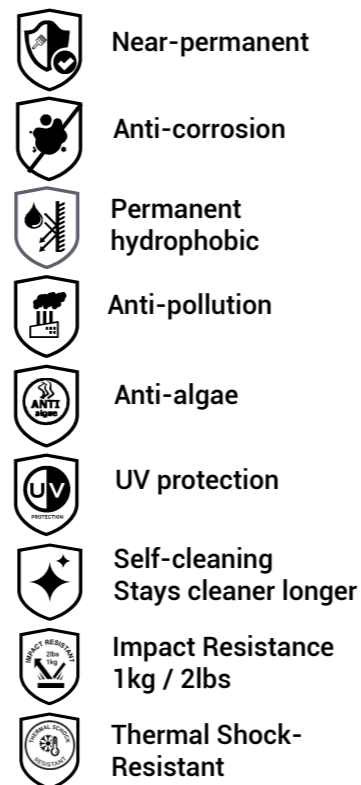
How to use: Page 20

SI21/SI22 is an incredibly strong 2-component paint system which forms a durable matrix of molecular bonds (transformation to ceramic) resulting in permanent protection of the surface.

Three simple steps: Clean, Dry, and Apply.

- Easily repels water, dirt, dust, and pollutants.
- This coating is permanent hydrophobic.
- Restores damaged finishes and reduces cleaning intervals.
- Resistant to all kinds of chemicals and UV radiation.
- Superior anti-pollution and anti-corrosion properties.
- This coating can withstand temperatures of 300°C suitable for making walls fire retardant and to make rooftops waterproof

Expected life duration up to 30 years+



## Thermal Shock - Impact Resistant



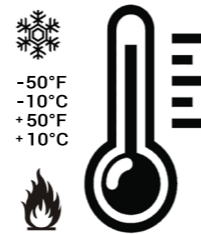
# SI31 2-Component (2K)

## Textured Transparent Semi Gloss antislip - high impact resistant



<b>Product ID</b>	: SI312000 2L / 2.000gr
<b>Consumption</b>	: 3 layers +/- 222gr/m <sup>2</sup> - 222ml/m <sup>2</sup> 90 micron = 9m <sup>2</sup>
<b>Reachable area</b>	: 2 layers +/- 111gr/m <sup>2</sup> - 111ml/m <sup>2</sup> 60 micron = 18m <sup>2</sup>
	: 1 layer +/- 74gr/m <sup>2</sup> - 74ml/m <sup>2</sup> 30 micron = 27m <sup>2</sup>
<b>Hardness</b>	: H9
<b>Used on</b>	: Gelcoat, fiberglass, steel, aluminium, : plastics, wood, virtually any surface.
<b>Application area</b>	: Buildings, marine, offshore structures, bridges, etc

How to use: Page 20



How to use: Page 31

SI31 is a clear solvent-based ceramic coating, linked with a ceramic activator, available in semi-gloss and includes sprayable nano particles.

Known for its exceptional durability, this coating easily applies to any organic surface without needing a primer. Its textured design makes it perfect for anti-slip needs.

- Easily repels water, dirt, dust, and pollutants.
- This coating has an outstanding hydrophobic effect.
- Resistant to all kinds of chemicals and UV radiation.
- This coating can withstand temperatures of 300°C.
- Zero absorption, waterproof, insulation and heat rejecting

Expected life duration up to 30 years+

- Easy to apply**  
**Repaintable**
- Cut maintenance**
- Anti-water spot**  
**Anti-corrosion**
- Permanent hydrophobic**
- Self-cleaning**  
**stays cleaner longer**
- Anti-scratch**
- Visibility safety**
- Protects your investment**
- Impact Resistance**  
**1kg / 80cm**
- Saves 10-20% on electricity**



## Anti Slip - Noise Reduction



# SI14

3-Component (3K)

## The Smartest Antifouling

black/red/blue/grey

<b>Product ID</b>	: SI144000-BK SI144000-RD 4L/ 4.300gr : SI144000-BL SI144000-GR 4L/ 4.300gr
<b>Consumption</b>	: 2 layers 308gr/m <sup>2</sup> - 286ml/m <sup>2</sup> = 200 micron /14m <sup>2</sup>
<b>Reachable area</b>	: 1 layers 154gr/m <sup>2</sup> - 143ml/m <sup>2</sup> = 100 micron / 28m <sup>2</sup>
<b>Hardness</b>	: H7
<b>Used for</b>	: Gelcoat, fiberglass, steel, aluminium, plastics, wood
<b>Application area</b>	: Marine Antifouling (humid environments)



How to use: Page 20

SI14 is a super strong strong and sleek 3-component antifouling system which forms a durable matrix of molecular bonds (transformation to ceramic) resulting in a superior protection of the surface.








The coating tricks microorganisms into perceiving plain water in front of them, rather than a ship's hull; as a result they often make no attempt to settle on the hull.

Due to a combination of hydrophobic silicone and hydrophilic polymers they can not longer clearly recognize the surface, nor distinguish the hull unambiguously from sea water.

Three simple steps: Clean, Dry, and Apply.

- Easily releases algae
- Super smooth self-polishing surface
- Organic Copper and Tin Non Biocidal release
- This coating has an outstanding hydrophobic effect.
- Resistant to all kinds of chemicals and UV radiation.
- This coating can withstand temperatures of 300°C

Expected life duration up to 8 year+

-  **Easy to apply**  
**Repaintable**
-  **Cut maintenance costs**
-  **Organic Copper and Tin**  
**Non Biocidal**
-  **Super Sleek Surface**  
**Algae release <6knots**
-  **Permanent**  
**hydrophobic**
-  **Self-cleaning**  
**stays cleaner longer**
-  **Save fuel**
-  **Impact Resistance**  
**1kg / 2lbs**
-  **Thermal Shock-**  
**Resistant**



## Super Smooth - Saves Fuel



# SI13

2-Component (2K)

## Paint Coolest White for egg-shell surfaces

**Article Nr.** : SI132000 2L / 3.300 gr White

**Consumption** : 2 layers +/- 235gr/m<sup>2</sup> - 143ml/m<sup>2</sup> 90 micron = 14m<sup>2</sup>

**Reachable area** : 1 layer +/- 118gr/m<sup>2</sup> - 72ml/m<sup>2</sup> 45 micron = 28m<sup>2</sup>

**Hardness** : H7

**Used for** : The SI13 system can be applied directly or indirectly on all surfaces (porous and non-porous) such as concrete, steel, wood, acrylic, gypsum, painted or unpainted surfaces, walls, ceilings indoors, or outdoors

**Application area** : Buildings, offices airports, offshore structures, bridges, tunnels, hotels, private housing, etc.



**How to use:** Page 20

SI13 is an incredibly strong 2-component paint system which forms a durable matrix of molecular bonds (transformation to ceramic) resulting in permanent protection of the surface.

Three simple steps: Clean, Dry, and Apply.

- Easily repels water, dirt, dust, and pollutants.
- This coating has an outstanding hydrophobic effect.
- Restores damaged finishes and reduces cleaning intervals.
- Resistant to all kinds of chemicals and UV radiation.
- Superior anti-pollution and anti-corrosion properties.
- This coating can withstand temperatures of 300°C suitable for making walls fire retardant and to make rooftops waterproof.

Expected life duration up to 25 year+



## Passive Cooling - Isolating





# SI15

1-Component (1K)

## Paint Coolest White for egg-shell surfaces

**Article Nr.** : SI152000 2L / 3.000 gr White

**Consumption** : 2 layers +/- 235gr/m<sup>2</sup> - 143ml/m<sup>2</sup> 90 micron = 14m<sup>2</sup>

**Reachable area** : 1 layer +/- 118gr/m<sup>2</sup> - 72ml/m<sup>2</sup> 45 micron = 28m<sup>2</sup>

**Hardness** : H6

**Used for** : The SI15 system can be applied directly or indirectly on all surfaces (porous and non-porous) such as concrete, steel, wood, acrylic, gypsum, painted or unpainted surfaces, walls, ceilings indoors, or outdoors

**Application area** : Buildings, offices airports, offshore structures, bridges, tunnels, hotels, private housing, etc.

SI15 is an incredibly strong 1-component paint system which forms a durable matrix of molecular bonds (transformation to ceramic) resulting in permanent protection of the surface.

Three simple steps: Clean, Dry, and Apply.

- Easily repels water, dirt, dust, and pollutants.
- This coating has an outstanding hydrophobic effect.
- Restores damaged finishes and reduces cleaning intervals.
- Resistant to all kinds of chemicals and UV radiation.
- Superior anti-pollution and anti-corrosion properties.
- This coating can withstand temperatures of 300°C suitable for making walls fire retardant and to make rooftops waterproof

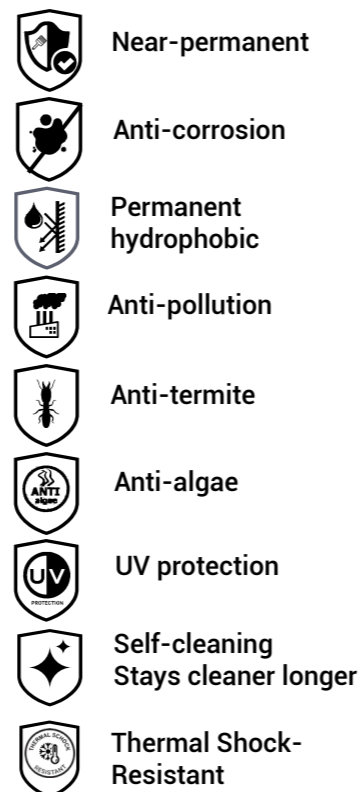
Expected life duration up to 20 years+



**How to use:** Page 20



## Chemical - Temperature Resistant (300°C)



# SIX1

2-Component (2K)

## Primer Micro Zinc Grey

heavy duty - anti-corrosion

<b>Article Nr.</b>	: SIX12000 2L / 3.665gr
<b>Consumption</b>	: 2 layers +/- 130gr/m <sup>2</sup> - 110ml/m <sup>2</sup> 60 micron = 16m <sup>2</sup>
<b>Reachable area</b>	: 1 layer +/- 65gr/m <sup>2</sup> - 55ml/m <sup>2</sup> 30 micron = 24m <sup>2</sup>
<b>Hardness</b>	: H7
<b>Used on</b>	: Steel, Aluminium and other organic surfaces
<b>Application area</b>	: Buildings, marine, airports, offshore structures, bridges



**Fast Repaintable**



**Excellent adhesion**

SIX1 is a solvent based micro zinc primer. This primer is used for corrosion protection on stainless, galvanized, carbon and alloy steel, aluminum in corrosive conditions and has excellent adhesion to all organic substrates and to one of our ceramic topcoats. The primer can be applied at a relative humidity of 40-80% and can be painted over within 8 hours 30°C, 1 hours 60°.



## Micro Zinc & Wood Grain Filler

# SIX2

1-Component (1K)

## Primer Wood Grain Filler

surface modifier - absorption reducer

<b>Article Nr.</b>	: SIX12000 2L / 3.250gr
<b>Consumption</b>	: 2 layers +/- 130gr/m <sup>2</sup> - 110ml/m <sup>2</sup> 50 micron = 16m <sup>2</sup>
<b>Reachable area</b>	: 1 layer +/- 65gr/m <sup>2</sup> - 55ml/m <sup>2</sup> 25 micron = 24m <sup>2</sup>
<b>Hardness</b>	: H4
<b>Used on</b>	: Aluminium, concrete, wood and other organic surfaces
<b>Application area</b>	: Buildings, marine, airports, bridges



**Fast Repaintable**



**Excellent adhesion**



**VOC Free**

SIX2 is a waterborne wood filler. This primer is used as surface modification for, wood or concrete to reduce capillary absorption and has an excellent adhesion to all organic substrates and towards one of our ceramic top coats. The primer can be applied at a relative humidity of 40-80%.



## How to use our Permanent Coating System:

These products can be stored for up to 24 months (*in a dry, temperature-stable dark environment*)

### Processing Temperature:

Ambient temperature: 41-86°F  
Avoid direct sunlight, Rain and /or high humidity.

### IMPORTANT:

Before you use a NANO-CERAMIC product, please make sure you wear suitable protection gear. We always recommend using a paint suit, respirator mask and latex or nitrile gloves.

### Outfit/Applicators:



Fresh Air Respirator



Paint Suit



Nitrile gloves



Professional Paint Sprayer  
1.3-1.7mm / 0.05-0.06" nozzle



Paint Roller  
(Microfiber)



Respirator



Paint Brush  
(acrylic)

### Application information

The SI11/SI12/SI13/SI14/SI15/SI21/SI22/SI31 coatings can be applied directly or indirectly on all surfaces (porous and non-porous) such as concrete, steel, wood, acrylic, gypsum, painted or unpainted surfaces, indoors, or outdoors. The surface underneath will be superbly protected against erosion and corrosion and will stay cleaner longer. Cleaning becomes quicker, easier, and less expensive, as special cleaning agents are unnecessary.

### Preparation

Make sure the surface is free from any contamination and dirt. A zinc rich primer can be used for ferrous metals that are exposed to coastal and marine environments or in case of problems with the substrate.

**Warning the surface must be completely dry before application and must stay dry for 6 hours after application after application!**

### The 2-Component Permanent Coating System

Mix the can SI11B-SI12B-SI13B-SI21B-SI22B-SI31B with the can of SI11A-SI12A-SI13A-SI21A-SI22A-SI31A by pouring can B into can A, or measure **exactly by NET WEIGHT** in a ratio of 9:1 and mix very well. Mix SI14A2800 with SI14C0800 with by pouring can C into can A, or measure **exactly by NET WEIGHT** in a ratio of 7:2 **by using a scale** and **mix very well**, then add the entire content of SI14B0400 or measure **exactly by NET WEIGHT** in a ratio of 7:1 (compared to SI14A2800) **by using a scale** and **mix very well**. Carefully pour the mixed contents into a professional paint sprayer, and spray in thin layers until the surface reaches a required thickness. Depending on the surface, material and structure, different application techniques can be used (such as paint rollers or brushes).

Let the surface dry for 24 hours. It is touch-dry in 1 hours, after 4 hours, 85% cured, and the remaining 15% (transformation into ceramics) is fully cured after 7 days. Be aware that the mixed contents cannot be stored longer than 3 hours. The surface can simply be maintained with a high pressure washer at 80 bar using our biologically degradable Reactivating Shampoo SHRE.

### Tool cleaning

The individual components, as well as the mixing system of the paint sprayer, can be diluted and cleaned using our THIN Thinner Solvent.

# SOLV

 Thinner solvent

for all types of our ceramic paint & coating

Article Nr. : SOLV0400 400ml / 345gr

All our paints and coatings are ready to use, for certain spray applications, especially dark colors who require more than average color pigments, it may be necessary to use a little thinner solvent to achieve optimum flowability.



# RETA/ACCL

 Retarder Accelerator

slow down flash time or speed up curing

Article Nr. : RETA0400 400ml / 345gr ACCL0200 200ml / 180gr

If your application need longer flash time (longer time to build up the layer with a second or third coat you can add the RETA Retarder.

In case you want to speed up the curing process you can add the ACCL Accelerator.



## E-Warranty

Guarantee of quality and reliability of NANO-CERAMIC is guaranteed for 10 years if applied to the maximum thickness as indicated on the product page This limited product warranty covers the purchaser for installation in a new building application when installed professionally and supervised by an approved installer. The warranty applies only to newly constructed concrete wall applications, and warrant only against discoloration, peeling, cracking or delaminating. No warranty caused by surface/concrete cracks. All claims caused by cleaning chemicals, other than our SHRE Pure Shine Shampoo will be rejected. The warranty is valid only if registered by one of our approved installers through our Dealership Electronic Warranty registration form on our website.

# Sample Kits, Test, Touch and Feel

**Sales Demo Kit**  
Coated Substrates  
SI110500 (2K)  
SI150500 (1K)  
2x500ml



DEMOPKIT

**Test Kit**  
SI130250 (2K)  
SI410250 (2K)  
SI210250 (2K)  
SI310250 (2K)  
SI330250 (2K)  
SI110250 - LY (2K)  
6x 250ml



DEMOTKIT

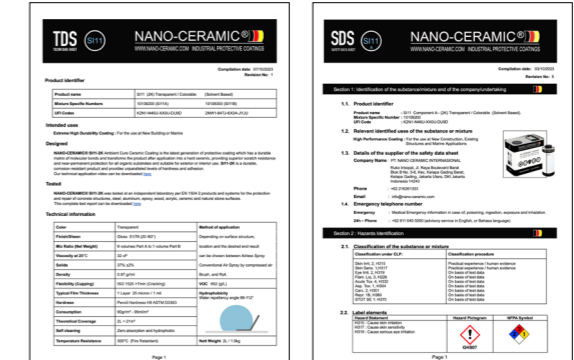
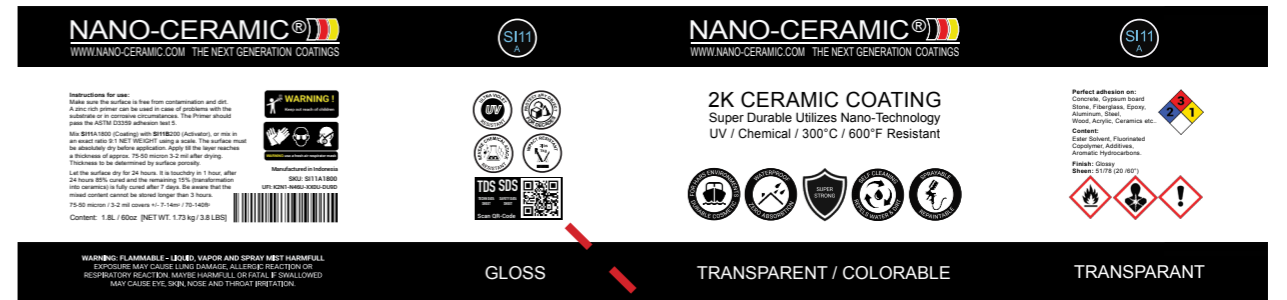
**Substrate Kit**  
16 different coating and paints



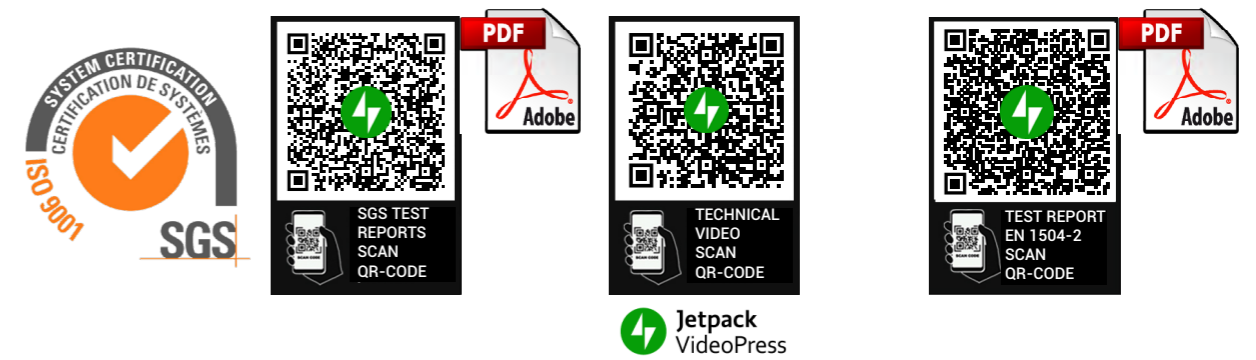
DEMOSKIT

All our products are produced according to EU/ECHA USA/OSHA/EPA CANADA/WHIMS regulations

# Scan QR Code for TDS and SDS



# Video Application & (Test) Results



# NANO-CERAMIC®



WWW.NANO-CERAMIC.COM INDUSTRIAL PROTECTIVE COATINGS

**There is no better option than to use  
NANO-CERAMIC!**



## ***The Leader in Durability***

*Did you know?*

*That our coatings are made  
of pure silica sand, which is  
the most common element  
on Earth?*

**Dealer**