

WWW.NANO-CERAMIC.COM INDUSTRIAL PROTECTIVE COATINGS



## Aviation

# What is NANO-CERAMIC Thin Film Coating?

NANO-CERAMIC Thin Film Coating is a revolutionary, ultra-hard and long-lasting ceramic surface coating that provides superior scratch resistance and semipermanent protection for all factory aircraft paints and for all aerospace materials like aluminum and carbon.

# What makes NANO-CERAMIC Thin Film Coating so different?

NANO-CERAMIC Thin Film Coating forms super-durable molecular bond with the surface and is more than 4 times stronger than traditional clear coating. This allows NANO-CERAMIC to effectively absorb damage that would otherwise affect the factory paint, significantly diminishing the formation of swirl marks and light scratches and protecting and preserving the factory paint from environmental damage and corrosion, which can cause major maintenance issues over time.



Conventional paints are simply not strong enough and turbine blades are easy corroded.

Commercial planes are normally painted every seven to ten years and they have to be stripped of the old paint before any new paint can be applied. The costs are enormous and weigh heavily on the overall maintenance costs.

NANO-CERAMIC Thin Film Coating is completely resistant to acidic environmental substances, such as bird droppings and acid rain, and to oxidation, unlike your factory aircraft paint and aluminum parts which can be permanently damaged.

NANO-CERAMIC Thin Film Coating will not etch or dissolve when in contact with harmful substances like salts, fuels, and hydraulic fluids, maintaining the clean and original surface.

# What are the benefits of applying NANO-CERAMIC Thin Film Coating?

NANO-CERAMIC Thin Film Coating will provide aircraft with a superior clear coat film that, on winglets, can withstand 600+ mph winds at 30,000 feet above the earth. It is resistant to chemical etching, is much harder than factory aircraft coatings, will reduce swirl marks and scratches, and has a semi-permanent hydrophobic surface that is much easier to clean, and stays cleaner longer. Even chrome, aluminum, and other metals can have added protection, as our coatings can withstand temperatures of over 1000°C/1800°F.

Cleanliness and smoothness of the aircraft fuselage, together with our thin ceramic coating on the turbine blades, which allows a higher operating temperature in the turbine, by preventing thermo-mechanical fatigue failure (TMF) cracks, and a clean smooth fuselage are the main drivers for fuel savings or penalties.







**Step 1** Surface layer of factory clear coat is damaged and contaminated.

**Step 2** Technician decontaminates and polishes clear coat to produce a smooth and even surface.

**Step 3** Coating thickness will be restored with a superior NANO-CERAMIC layer.



# SIO3 GLOSS

# Fuselage & Windshield Protection 📟 incl. turbine blades

Product ID	: SIO31A00 1L 8 Micron SIO21A00 1L 2 Micron	
Consumption	: +/- 2 ml/m <sup>2</sup>	
Reachable area	: +/- 500m <sup>2</sup> Fuselage + 500m <sup>2</sup> Windshield	
Used for	: Gelcoat, acrylic, aluminium	
Application field	: Aviation	

Your aircraft will stand out! This Kit-Set contains all to protect your plane with a High-Tech ceramic thin film coating.

- Two simple steps: Clean with our Steril Cleaner and Apply
- The original surface is protected against corrossion.
- Makes the surface anti scratch, much easier and guicker to clean, and the adhesion of dirt is reduced drastically.
- Save on fuel because smoother fusilage and on repaints.
- · Our thin film coating on the turbine bladesallows a higher operation temperature in the turbine which improves the fuel yield

This coating has an outstanding hydrophobic effect, and the surface stays cleaner longer. Cleaning intervals as well as the formation of water spots will be greatly reduced.

Lasts for 5 Years+ (2 Years on Glass)



How to use: Page 10

Easy to apply **1**5 Cut cleaning costs Anti-water spot Anti-corrossion

> Super hydrophobic

Z

Anti-Scratch

0

**†**\$

Self-cleaning stays cleaner longer

Anti-scratch

Save on fuel Save on repaints

Protects your investment

Applicator:



# SIO5 MATTE

# **Fuselage & Windshield Protection** incl. turbine blades

Product ID Consumption Reachable area Used for Application field

: SI051A00 1L 2.5 Micron SI021A00 1L 2 Micron : +/- 2 ml/m<sup>2</sup> : +/- 500m<sup>2</sup> Fuselage + 500m<sup>2</sup> Windshield : Gelcoat, acrylic, aluminium

: Aviation

Your aircraft will stand out! This Kit-Set contains all to protect your plane with a High-Tech ceramic thin film coating.

- Two simple steps: Clean with our Steril Cleaner and Apply
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Easy to apply



Cut cleaning costs

How to use: Page 10



Anti-water spot Anti-corrossion



Super hydrophobic

Self-cleaning

Anti-scratch

stays cleaner longer



 $\bowtie$ Anti-Scratch



Save on fuel Save on repaints



Protects your investment

#### Applicator:



NANO-CERAMIC.COM



OB CODE

06



# STEP

## **One Step Polish** contamination remover

Product ID	:STEP0250 250
Consumption	: 5ml/m <sup>2</sup>
Used for	: Gelcoat, acrylic,
Application field	: Aviation

ml aluminium

Only this High Quality Polish Compoud together with the recommended pads assure that every plane can be polished from deep scratches till high gloss/zero swirl in one single step. This saves an enormous amount on working hours as polishing takes normally 65% of the total process to make a plane or helicopter a thin film nano layer.

### **Recommended Polishing Pads**

Purple Wool Heavy Cutting Pad cuts like natural sheepskin but finishes like a polish pad. Aggressively removes P1500 grit scratches, leaving a lustrous finish with no hazing by reducing compounding swirls.

The Cutting Pad is constructed with a blue foam and white microfiber. The Micro Cutting Pad with orange foam and white microfiber, the Polishing Pad is constructed with a black foam and black microfiber.

The pad serie is available 5.5 inch and 3 inch.





SKU-40201008-5.5INCH SKU-40201408-3.0INCH



SKU-40201101-5.5INCH SKU-40201501-3.0INCH





SKU-40201302-5.5INCH SKU-40201702-3.0INCH



## **Steril Cleaner** for hard surfaces

Product ID Consumption Used for Application field

: CLEAN0500 500 ml / CLEAN5000 5L / CLEAN020L : +/- 3.3 ml/m<sup>2</sup> : Gelcoat, acrylic, aluminium, stainless : Aviation

100% Steril with nano interlock technology (active lifting encapsulate the grease from the surface

- Surface cleaning and residue removal. •
- Cleaning gloves, notebooks, phones or any other item entering • the cleanroom.
- Wipe down for pass-through to controlled environments. •
- Pretreatment for the application of thin film coating •

100% Steril

**NANO-CERAMIC®** 

THE NEW GENERATION COATINGS





Easy to apply spray &wipe



Indoor Outdoor



**Remove grease** 



100% Steril



Visibility Safety



#### NANO-CERAMIC.COM



# SHRE

# **Pure Shine Shampoo** for all exterior surfaces

Product ID : SHRE1000 1L / SHRE5000 5L / SHRE020L 20L Consumption : 20 ml : 10 Liter Water Used for : Cleaning all exterior surfaces Application field : Aviation





This multi-purpose cleaner contains no polymers or colors and will not leave a film of chemicals behind on the surface.

100% Safe to use for cleaning all non-porous surfaces and meets food grade classification for kitchens.

Contains no colouring chemicals which can discolor surfaces.





SHRE1000L SHRE0500L



MPCL

## **Multi Purpose Cleaner** for all interior surfaces

Product ID		
Consumption		
Used for		
Application field		

- : MPCL0500 500 ml / MPCL5000 5L / MPCL020L 20L : 5ml/m<sup>2</sup> : Cleaning all interior surfaces
- : Aviation

The All-Purpose Cleaner is a fast, all-surface interior cleaner, low foaming, odor free, and especially suitable for removing stubborn stains from carpets, fabrics, vinyl, plastics and leather safely.

- It is very easy to clean dirt.
- Ready-to-use mixture with the right chemical strength and safe to use
- Of course it is safe for the surface of fabrics, carpets, plastics, leather, rubber and does not fade paint.
- Quickly remove dirt, dust and food scraps

Safe to use does not harm the surface





Easy to apply spray & wipe

No discoloration

Indoor Outdoor

Quick to use

Spils are easy to remove

**Cleaner for longer** 

Applicator:



NANO-CERAMIC.COM

## HOW TO USE:

## NANO-CERAMIC SIRP-SIO3-SIO5 MAX Thin film coatings

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

### Ambient temperature:

5-30° C Avoid direct sunlight and/or high air humidity.

### **CLEANING**

Clean the surface thoroughly with our Steril Cleaner until it is absolutely clean. If necessary, use our Scrub Cleaner or Reactivating Pure Shine Shampoo in advance. Make sure that all contamination is removed so that the glass coating can bind properly onto a clean surface. Make sure that the surface is completely dry before application!

### **APPLICATION OF SIRP**

Spray a layer of nano SIRP on the surface and rub it in with a dry microtowel, keep rubbing it into the surface with strong pressure and wipe until all the product is even and scrubbed and only a little hazing / residue is visible gently wipe off this hazing / residue with a clean microfiber cloth after about a minute There is only a little pressure needed to remove the hazing completely. Curing time 1 hour.

#### **APPLICATION OF SI03-SI05-MAX**

Our coatings have best results on new on almost like new surfaces, we recommend to polish the surface if needed. Wear nitril gloves to clean the surface with our Steril Pretreatment Cleaner. (without wearing gloves, the oil from your hands may appear via the towel onto the surface) !!

Use more than one clean cloth to remove the dirt from the surface. (Please make sure you don't brush the dirt around on the surface by using dirty clothes.) Making the clearcoat-chromeglass-surface clean is the most important issue. If the surface is not super steril than you will experience chemical reactions between our coatings and the still available contamination what is then visible into the ceramic layer when it is cured. In that case you will need to polish the surface again. So please don't hurry in carrying out this preparation work, but instead focus on this for 100%.

Learn the right application technique > Watch and Study the Apply Video scanning the QR Code on this page or on the packaging

### (fragment **BASE COAT**) **OPTIONAL**

Use nitril gloves! Remove the plastic inner closure from the bottle and put in the dripper. Shake bottle before use! We recommend to apply the surface in easy to handle segments of about 40x40cm (15"x 15"inch), following the panels shape and corner lines and use these lines for overlaps. Put 8-10 drops BASE COAT on the suede mini towel using the applicator block underneath, devide the coating properly by going 3 times over the same surface, wait till it lights up (+/- 25sec) and remove the residue carefully, and buff it lightly use a separate micro towel for this. Wait 2 hours before you continue with the application of one of our hydrophobic Top Coatings. After 2 hours BASE COAT is 80% cured and ready to receive one of our TOP COATINGS. After about 7 days the BASE COATING has been fully cured and is almost unremovable.

#### (fragment TOP COAT SIO3-SIO5-MAX) Use nitril gloves! Remove the plastic inner closure from the bottle and put in the dripper. Shake t

he bottle before use! We recommend to apply the surface in easy to handle segments following the panel shape and corner lines and use these lines for overlaps.

Put 6-8 drops 40x40cm (15"x 15"inch), (if start use more drops as the towel is otherwise too dry ) TOP COATING on the suede mini towel using the applicator block underneath. Start dividing it from out of the middle of the surface and keep spreading it arround by light pressure in criss-cross motions until the product is evenly distributed.

MOST IMPORTANT keep on doing this till no product residue is visible anymore. If you use too much coating and/or spreading it out from example one start position in a corner of a panel then you will not be able to divide it properly towards the other side and it will roll-up on each other and form a not equal layer. To use too much coating and not divide it equally is the second most critical point !!

When you apply TOP COATING in this correct way, then there is no need to use a micro towel for polishing anymore.

#### (fragment SAFETY VISION)

Apply the nano layer SAFETY VISION COATING with the cotton apply pad. Spread 10-15 drops 50x60cm (20"x 25"inch) of SAFETY VISION COATING on the cotton pad and apply rubb it in motions on the windshield with firm pressure until all of the product is evenly distributed and only very little residue is visible.

Remove the coating residue with a soft clean microfiber cloth after about a minute and buff the glass/panels gently to take the veils away. There is not much pressure necessary to remove it completely. Note: dry the dripper and close the bottles tightly if you want to save the content for future use. At normal ambient temperature the Nano layers are sufficiently cured after approximately 6 hours (or 2 hours Infrared) (avoid water contact during this time).

## Application Video





NANO-CERAMIC®

# **G** Jetpack VideoPress SGS (Test Reports)

# Thin Film Protection Plan for Aircrafts Fusulage, Windows and Turbine Blades

## **Thin Film Maintenance Plan**





Step 1

Washing



Step 2 Polishing





Step 4 OPTIONAL Gorilla Basecoat Curing time: 2 hours

Step 5 SI03/S05 Topcoat





SIO2 SIO3/SIO5



Step 3 Steril Cleaner



Step 6 Curing time: 6 hours in ambient temperature





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# 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

NANO-CERAMIC®