

Approvals and conformities

SAFRAN AIRCRAFT ENGINES (formerly SNECMA)

DMR 74-510B (Non rotating parts only)

SOCOGLAZE SPC 0981 CF is an inorganic Chromate-free water-based coatings containing aluminium powder.

Steel protection against corrosion, hot corrosion and hydraulic fluids.

Performance :

- Excellent corrosion resistance,
- Excellent chemical resistance,
- High durability

Features & benefits :

- Chrome Free
- Waterborne
- Low VOC (<60 g/Ltr)
- Sacrificial coating containing aluminium powder
- Resistance to high temperature (450-550°C / 842-1022°F)

USES

Recommendation : Degrease the substrate before and after sandblasting.

Substrate	Preparation
Steel	Sandblasting

Please, consult us regarding SOCOMORE solutions for:

- Surface preparation (SOCOCLEAN, DIESTONE & DS ranges),
- Functionalized coatings (SOCOGLAZE, AEROGLAZE, CHEMGLAZE, PRIAM, LBYH ranges),
- Surface treatment (SOCOCLEAN & SOCOSURF ranges),
- Adhesion promotion (SOCOGEL & PREKOTE ranges)
- Chemical stripping (SOCOSTRIP & SPC ranges).
- Non destructive testing products & services (BABBCO range)



DIRECTIONS FOR USE

Preparation & Application

During application, the following requirements must be observed:

- 15 °C < T° < 35 °C
- 35 % < Hy < 70 %

1 - PNEUMATIC SPRAYING - Viscosity AFNOR CUP 4 : 30s +/- 10		Weight	Tol +/-
Base	SOCOGLAZE SPC 0981 CF	100	
Thinner	DL 1511	If necessary	10% max

Table: Thinner ratio according to application method. Viscosity measurements provided are intended to be guidelines only and not parameters for quality control. Verified information is provided in certification documents, which are available on request to the technical department.

Process :

1. Degreasing with **SOCOCLEAN UCA / UCS** (or alternative OEM qualified cleaner)
2. **Sand blasting with white alumina grit (180 µm = 80 Mesh, 4 bars = 55 PSI)**
In order to have an optimum adhesion of the Socoglaze SPC 0981 CF , it's necessary to have a minimum 2µm (78,7 inch) Ra after grit blasting.
3. **Cleaning after sand blasting** : Air blowing + Hyso 99 degreasing
4. **Preparation :**
 - a. **SOCOGLAZE SPC 0981 CF** is a "ready to use" product,
 - b. However, the product tends to settle quickly during storage.
 - c. Before taking some product from the bottle, always mechanically stir the product (rollers, gyroscopic disperser or conventional paint mixer) until all the aluminum is completely resuspended.
 - d. Then, filter the mixed product with a 125 - 190 µm filter. A spatula can be used to "break up" the residual agglomerates and help the product to pass through the filter.
 - e. Viscosity of the **SOCOGLAZE SPC 0981 CF**, Afnor cup 4 at 23°C (73.4°F) : **30 +/- 10 s** (According to the standards NF EN ISO 2431)
 - f. Dilute the paint with the thinner **DL 1511** if needed to reach this viscosity.

NB : Keep the product in a closed container after use

4. **Application of the SOCOGLAZE SPC 0981 CF :**
 - a. Apply the coating as quickly as possible after sand blasting and in any case within 6 hours maximum.
 - b. Adjust the air pressure and the nozzle to obtain a fine spraying.

NB : For complex parts, please contact our technical support : Advice on gun type, nozzle and pressure can be provided.

c. Average dry thickness obtained : 60 +/- 10 µm

Checking :

- Deadline from the grit blasting: Below 3H recommended, 6 hours maximum.
- Good wettability of the substrate
- Appearance: no orange peel, blisters, craters, cracks, etc...

NB : If some defects occur after the application, a rinsing with water is recommended before drying at 90°C to clean the **SOCOGLAZE SPC 0981 CF**.

AFTER THIS RINSING, it is very important to start with a new preparation of the substrate before a new paint application.

5. Drying and Curing :

FORCED DRYING	
Characteristics	Value
Flash-off before drying	15 - 30 min at room temperature
Drying	1 H – 90°C (194°F)
Stoving	4 H – 380°C (716°F)

Recommendations :

Drying :

- The **SOCOGLAZE SPC 0981 CF** must be light grey before drying
- Dry at 90°C (194°F) during 1 hour at effective temperature
- The drying is absolutely necessary before curing
- Deadline from application: Below 8H recommended, 24 hours maximum.

Curing :

- Cure at 380°C (716°F) during 4 hours (at effective temperature)
- Deadline from drying at 90°C (194°F): Below 24H recommended, 72 hours maximum.

You have to meet this time to ensure a good hardening of all the film.

6. Mechanical burnishing

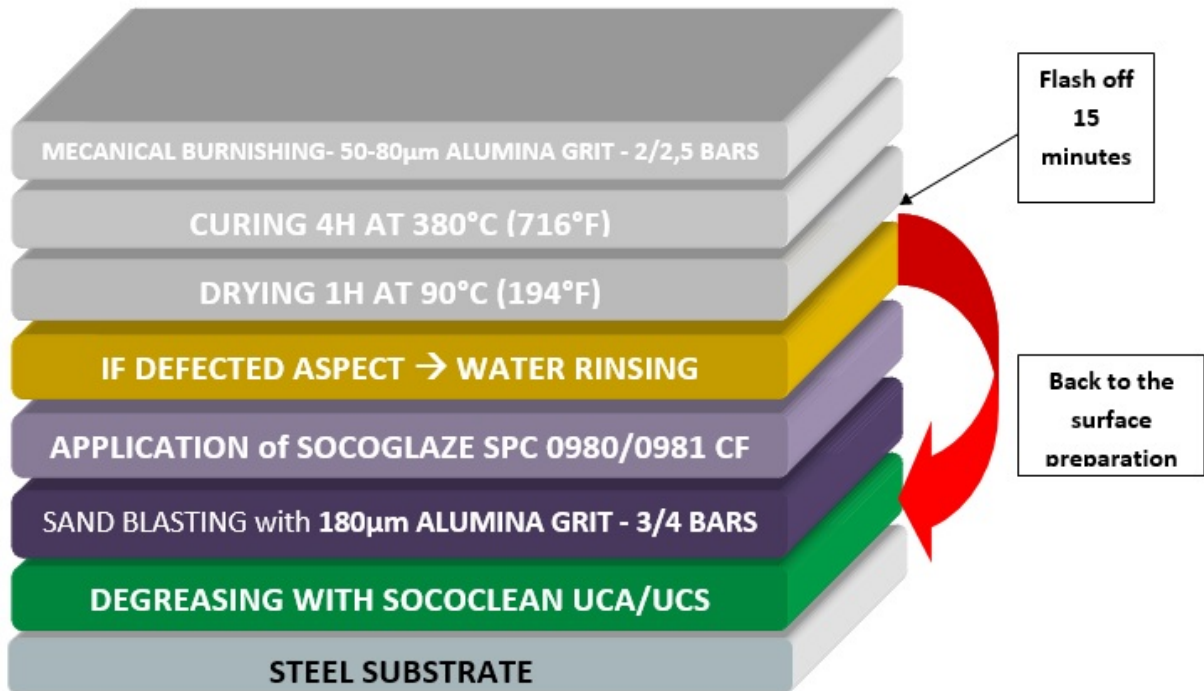
- Reminder: this operation has to be achieved after the curing.
- Burnish the coating system to make it become conductive without any abrasion of the paint.
- Use dry grit blast with 50-80 µm alumina sprayed under pressure of 2 bars – 2,5 bars (=30 to 35 PSI)
- Deadline from the curing at 380°C (716°F): Below 8H recommended, 24 hours maximum.

Checking:

Measure the electrical resistance between the two electrodes (at least 25 mm space

between both)

Test is conform if $R < 5 \text{ Ohms}$



Process summary

Stages	Recommendations
Degreasing	Sococlean UCA/UCS
Grit blasting	Optimum Ra : 2 µm (78,7 inch) Deadline between grit blasting and application : 3H recommended, 6H maximum
Cleaning	Air blowing + Hyso 99 Cleaning
Product preparation	"Ready to use" product – Homogenize the product by mechanical stirring before use.
Application	15°C < T°C < 25°C 40% < HR < 70% Dry thickness after burnishing : 35 up to 80 µm (1,35 to 3,15 Mils max)
Drying	1H at 90°C (194°F) Deadline between application and drying at 90°C : 8H recommended, 24H maximum
Curing	4H at 380°C (716°F) Deadline between drying at 90°C (194°F) and curing at 420°C (716°F) : 24H recommended, 72H maximum
Burnishing	Deadline between curing at 380°C (716°F) and burnishing : 8H recommended, 24H maximum Burnishing parameters must be adapted : For example: - Distance 150mm → Pressure 2 bars (29 PSI) - Distance 30mm → Pressure 1 bar (14,5 PSI) Minimum dry thickness after burnishing: 35µm (1,35 Mils) Resistivity < 5 Ohms

Removal of Coating:

If it should be necessary to remove the cured coating, it can be stripped by grit blasting or immersion in a hot (approximately 70°C (158°F) caustic soda solution (approximately 10% caustic soda concentration) then lightly grit blasting.

Recommended product : HDL 202 (Socomore product)

TECHNICAL CHARACTERISTICS

Technical Data - Product Ready For Use	
Characteristics	Values
Weight solids	71 % +/- 2
Wet density	1,63 % +/- 0,05 g/cm ³
Dry density	2,25 +/- 0,1 g/cm ³ (for 50 µm)

Data for mixture n°1

Other data

Characteristics	Standards	Values	Comments
Resistivity	Internal standard	< 5 Ohm	
Skydrol resistance	NF EN ISO 2812-1	> 750 h	immersion at 70°C (158°F)
Demineralized water resistance	NF EN ISO 2812-2	> 1000 h	Immersion at 40°C (104°F)
Temperature variation (-55 /+ 70°C) (-131°F/+ 158°F)	Internal standard	100 cycles	
Salt spray test	NF EN ISO 9227	> 2500 h	R0, no blister
Salt spray test with scribe	NF EN ISO 9227	> 1000 h	R0, no blister
High temperature corrosion 1 1 cycle = 16h SS + 6h à 400°C (752°F)	Internal standard	> 25 cycles	R0, no blister
High temperature corrosion 2 1 cycle = 16h SS + 6h à 450°C (842°F)	Internal standard	> 20 cycles	R0, no blister
High temperature corrosion 3 1 cycle = 16h SS + 6h à 550°C (932°F)	Internal standard	> 20 cycles	R0, no blister

PRECAUTIONS FOR USE AND STORAGE

Storage

Can be stored for 6 months between 5°C and 35°C in original, unopened containers. KEEP AWAY FROM FROST.

Shelf life after 1st opening : 3 months

For more information regarding the danger of the product, please consult the product safety data sheet according to local regulation.

For professional use only.

This technical data sheet replaces and cancels the previous one.

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