Approvals and conformities

AIRBUS	AIPI 02-04-013

SOCOSURF TCS/SCOP is a two-part bath solution specifically developed to passivate and colour cadmium plated steel.

- **SOCOSURF TCS** is a trivalent chromium based passivation solution, to replace the current Cr(VI) passivation solution.
- **SOCOSURF SCOP** is a solution to colour the layer to identify parts that have been passivated

SOCOSURF TCS/SCOP is developed from a patented technology.

Advantages / Benefits:

- Colored layer : easy visual identification after treatment
- Heat resistance 200°C: De-hydrogenation can be done after passivation
- REACH compliance
- Corrosion performance: no white corrosion at 96 Hr on cadmium plated steel (ISO 9227) and no red corrosion 750 Hr

USES

SOCOSURF TCS/SCOP bath is used after cadmium plating.

DIRECTIONS FOR USE

SOCOSURF TCS and **SOCOSURF SCOP** are concentrated products.
They need to be diluted and the pH of the final bath adjusted.

socomore

www.socomore.com

Asia +86 21 5813 1133 Europe Middle East Africa +33 (0)2 97 63 05 01 North America +1 (817) 335-1826 South America +55 11 96660-7169

The recommanded water quality for bath set-up is as follows:

- pH value (at 25°C): 5.0 to 7.0
- Dry residue total (mg/L) < 20
- Conductivity (µS/cm) < 20

1/ BATH SET-UP

36% (v/v) **SOCOSURF TCS** + 25% (v/v) **SOCOSURF SCOP** + demineralized water

- Adjust the pH to between 3.7 and 4.1. To increase the pH, adjust with 5% diluted ammonia. To decrease the pH, adjust with 5% diluted sulfuric acid.
- Agitate the bath
- The bath is ready for use when the solution turns pink (24 hours after mixing).

Use dedicated PVC/PVDC/PP/stainless steel tanks (316L) for the bath. The heating coil protectors must be made of Teflon or PVDF

2/ TREATING PARTS

The operating parameters of the bath and the surface treatment range must be determined by each user according to the expected requirements of the process and its specificities. Here is a guide:

- Immersion time: 0.5 - 2 mins
- Bath temperature: 35 to 45°C (ideally 40°C) / 95° to113°F (ideally 104°F).
- Agitation: gently agitate the bath, avoiding bubbles and turbulence. Recirculation is recommended. When parts are immersed, do not agitate, or agitate as little as possible.
- pH: 3.7 - 4.1

Filtration of the **SOCOSURF TCS/SCOP** bath is recommended (0.1 to 2 renewals / hour depending on the size of the tank - pore size < 25 microns).

A white precipitate may appear in the bath: heat the bath to 60-70°C to redissolve the precipitate. When the precipitation disappears, the product can be used after cooling down to the recommended temperature without any limitations to future protection.

Recommended surface treatment range
(each user must optimize the process according to his own specificities)

- Cadmium plating
- H2 deembrittlement if needed
- Reactivation H2SO4 10%w/w, 10 sec, room temperature
- Rinsing
- SOCOSURF TCS/SCOP, 45 sec at 40 °C
- Rinsing

3/ BATH MAINTENANCE

Products required for bath maintenance:

socomore

www.socomore.com

Asia +86 21 5813 1133 Europe Middle East Africa +33 (0)2 97 63 05 01 North America +1 (817) 335-1826 South America +55 11 96660-7169

- **SOCOSURF TCS**
- **SOCOSURF SCOP**
- 5% ammonia solution
- 5% sulphuric acid solution

The Control Test document (supplied on request) details the bath monitoring requirements.

TECHNICAL CHARACTERISTICS

SOCOSURF TCS specific gravity ..... >1
SOCOSURF TCS undiluted pH ..... 2.5 - 3
Socosurf TCS appearance ..... Green liquid
SOCOSURF SCOP specific gravity ..... >1
SOCOSURF SCOP undiluted pH ..... 3 - 5
SOCOSURF SCOP appearance ..... Colourless liquid

PRECAUTIONS FOR USE AND STORAGE

SOCOSURF TCS and **SOCOSURF SCOP** must be stored in a frost-free environment.
For more information about the product dangers, please consult the safety data sheet in accordance with local regulation.
For professional use only

This technical data sheet replaces and cancels the previous one.

The above details have been compiled to the best of our knowledge. They have, however, an indicative value only and we therefore make no warranties and assume no liability in connection with any use of this information, particularly if a third party's rights are affected by the use of our products. The above information has been compiled based upon tests carried out by SOCOMORE. All data is subject to change as SOCOMORE deems appropriate. The data given is not intended to substitute for any testing you must conduct in order to determine the suitability of the product for your particular purposes. Pictures are not contractual. Please check your local legislation applicable to the use of this product. Should you need any further information please contact us.

socomore

www.socomore.com

Asia +86 21 5813 1133 **Europe Middle East Africa** +33 (0)2 97 63 05 01 **North America** +1 (817) 335-1826 **South America** +55 11 96660-7169