socomore



Aluminium surface treatment

A full range of products
that meets regulatory constraints
and performance requirements

The Surface Company

SOCOMORE Surface treatment experts

For twenty years, SOCOMORE has developed its expertise in surface treatments for aluminium alloys, with two main goals:

To offer durable solutions
that are chromium-, borate- and fluoride-free to protect users

To offer alternatives qualified
by most OEMs, allowing users to adopt a single process for multiple OEMs and benefit from a single supplier for each step.

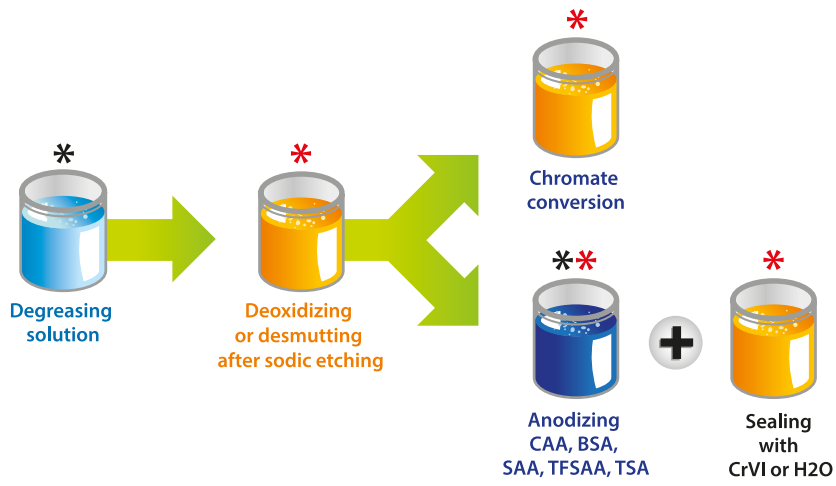
What is aluminium surface treatment?

Surface treatment is a sequence of steps to prepare and protect the surface against corrosion or prepare the surface before painting, non-destructive testing (NDT), bonding, etc. It is an immersion process, which also has applications for local touch-ups.
Surface treatment baths are also used to protect and strip anodic oxidation coatings.

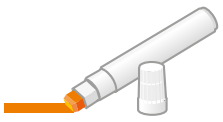
REACH impacts in aluminium surface treatment

Two substances traditionally used for surface treatment are subject to strict regulations under the European REACH regulation. These are substances based on Chromium VI and borates, which, among other things, have carcinogenic, mutagenic or reprotoxic (CMR) properties. Under REACH, these substances are classified as Substances of Very High Concern (SVHC), with the aim of phasing them out in the medium to short term within Europe. Therefore, industries must now begin substituting these compounds.

ALUMINIUM SURFACE TREATMENT REACH AND E&H CONTEXT



TOUCH-UP PROCESS



STRIPPING THE ANODIC OXIDATION COATING



* Borate Salts * Cr(VI) SVHC* submitted for authorisation, depending on use

*Substance of Very High Concern

Surface preparation



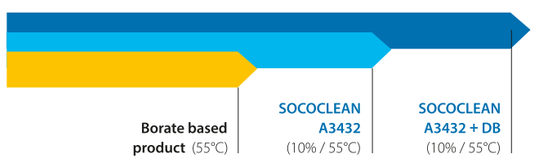
SOCOCLEAN A3432

Borate-free degreaser

Main characteristics

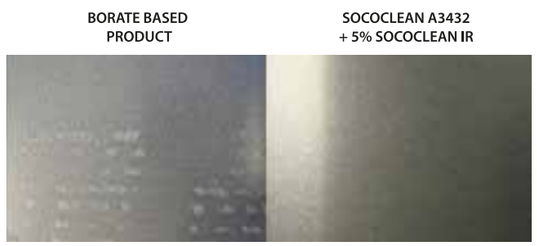
Borate-free degreaser meeting material compatibility and degreasing efficiency requirements; silicate-free to limit white residues.

EFFICIENT DEGREASING



- ***SOCOCLEAN DB ADDITIVE:***
  - Improves degreasing properties
  - Optimizes bath life

EFFICIENT INK REMOVAL



- ***SOCOCLEAN IR ADDITIVE:***
  - Improves ink removal properties
  - Reduces cycle times
  - Eliminates shadow effects

SOCOSURF A1858 / A1806

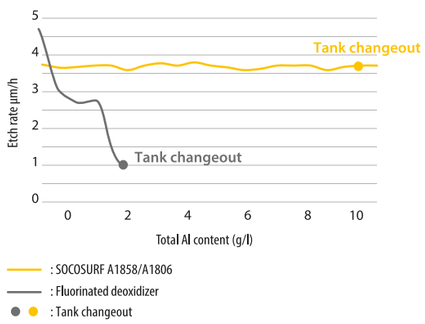
Chrome- and fluoride-free deoxidizer

Main characteristics

- ***STABLE PERFORMANCE,***
  even at a high concentration of dissolved metals
- ***IMPROVED HSE*** (Health, Safety, Environment)

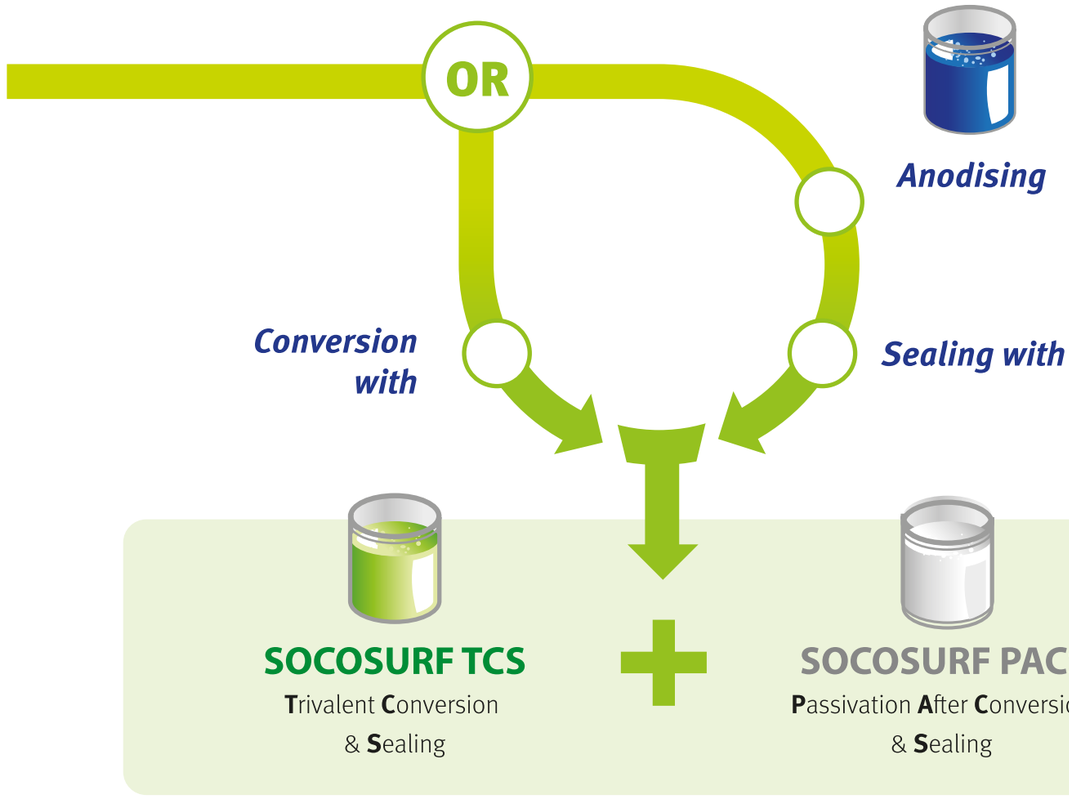
CONSTANT ETCH RATE

SOCOSURF A1858/A1806 is fluoride-free. Etch rate is linked to bath temperature.
It therefore remains **stable** throughout the bath life, even with a high level of dissolved aluminium, unlike the fluorinated deoxidizer.



- ***SPECIFIC ADDITIVES TO MAINTAIN BATH PERFORMANCE:***
  SOCOSURF A1850 and **SOCOMUL TA** to improve the solution life and control operational costs.

Cr(III)-based chemical conversion and sealing after anodization

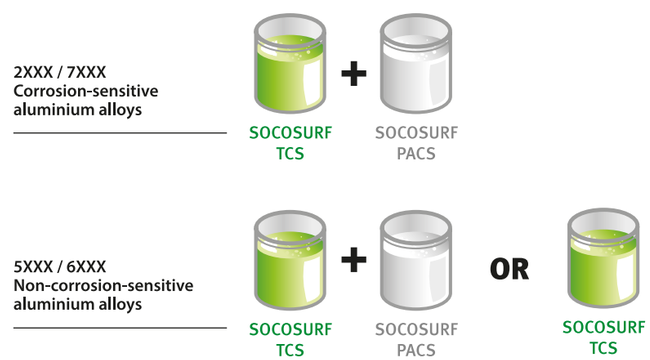


Common tanks for both anodizing sealing and conversion coating

Main characteristics

- ***WITHOUT HEXAVALENT CHROMIUM***
- ***1 SOLUTION FOR BOTH ANODIZING SEALING AND CONVERSION COATING***
- ***A DURABLE PROCESS TO COMPLY WITH REQUIREMENTS FOR:***
  - Electrical resistance
  - Paint adhesion
  - Corrosion protection

TREATMENT OPTIONS FOR 168 H SST CORROSION PROTECTION



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Towards detectability of conversion coatings: secure processes

Visible conversion and sealing for touch-up

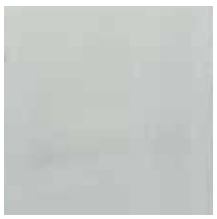
SOCOSURF TCS COLORED RTU* & SOCOSURF PACS RTU*

Main characteristics:

- The ready-to-use conversion or sealing solution for **touch-up** creates a **visible** layer.



TREATED



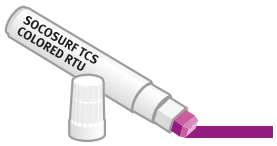
UNTREATED

- Easy to apply and inspect for quality control.
- A durable process to comply with requirements for:
  - Electrical conductivity
  - Paint adhesion
  - Corrosion protection

ONE-STEP PROCESS

SOCOSURF TCS COLORED RTU

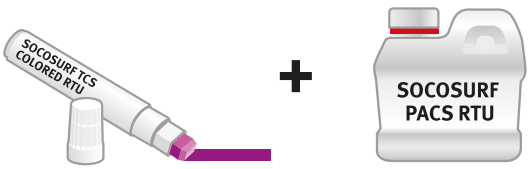
- Corrosion protection
  96 hours SST on 2xxx-7xxx alloys
  168 hours SST on 5xxx-6xxx alloys



TWO-STEP PROCESS

SOCOSURF TCS COLORED RTU
+ SOCOSURF PACS RTU

- Corrosion protection
  168+ hours SST on 2xxx-7xxx alloys



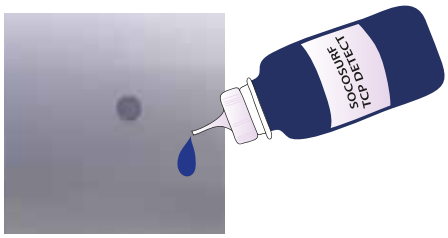
Non-destructive detection of colorless conversion coatings

SOCOSURF TCP DETECT

The first **non-destructive** detection solution for conversion coatings, significantly helping quality inspection by making the **conversion coating visible** through a simple color indicator.



TREATED:
=
NO VISIBLE MARK



UNTREATED:
=
VISIBLE MARK

*Ready-to-use

QUICK PROCESS:

1. Place a drop on the cleaned area.
2. Leave it to react for 5 minutes.
3. Wipe off with a damp cloth, then dry.
4. Inspect.

A product range designed to comply with the REACH regulation and which enables our customers to meet OEM requirements.



Contact your Socomore representative to learn more about the different available formats.

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Supporting our customers worldwide is our priority. We have sales and technical teams, subsidiaries, and strategic partnerships located around the world to service our customers' needs.

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