

Protectostan[®] Plus 3

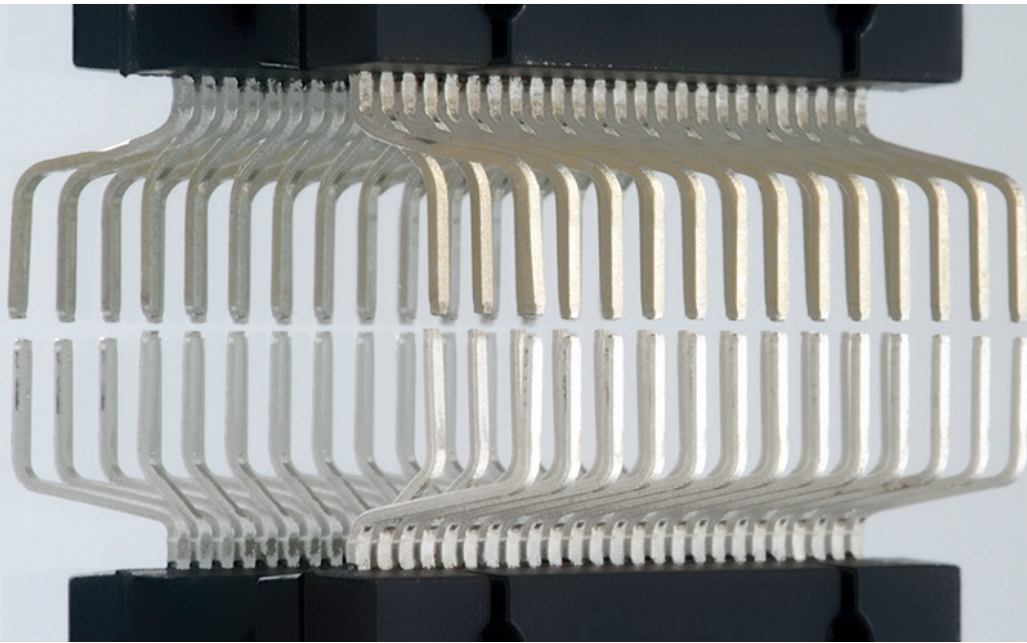
PFAS free tin posttreatment



Electronics

Functional electronic coatings

atotech.com



High performance “2-in-1” tin post-dip

100%

perfect solderability

Green protection for surfaces

Protectostan[®] Plus 3 is a new PFAS free tin posttreatment chemistry that effectively protects tin surfaces. It preserves a perfectly solderable surface even under the harshest conditions, such as pressure cooker tests or extensive heat treatments.

Protectostan[®] Plus 3 creates a hydrophobic surface that repels all moistures that may corrode the tin layer. It is free of hazardous or critical chemicals like PFAS and the like making Protectostan[®] Plus 3 a highly sustainable solution for lead frames, connectors, bus bars, and more.

Protectostan® Plus 3 – A PFAS free tin posttreatment

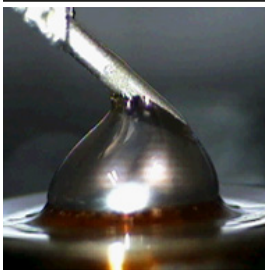
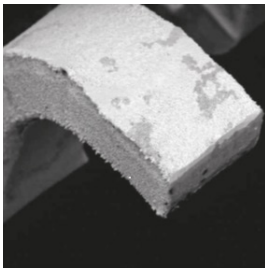
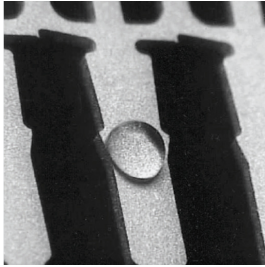


Fig. 1:
Protectostan® Plus 3 converts the tin layer into a hydrophobic, water repellent surface.

Fig. 2:
No corrosion whisker found after 4000 h heat / humidity storage at the toe cut

Fig. 3:
Excellent solderability of the tin layer

Posttreatment for tin

As a PFAS free posttreatment for tin, Protectostan® Plus 3 is a sustainable solution. It prevents reflow discoloration and improves the solderability after heat treatment. At the same time, the process improves the long term storage of the tin layer, and preserves solderability even after steam aging. By preventing severe oxidation under high heat treatment conditions, it allows for a reliable assembly process.

Mitigation of corrosion whiskers

Protectostan® Plus 3 mitigates corrosion whiskers by creating a hydrophobic surface. During heat and humidity whisker tests, it repels moisture. This leads to less condensed water on the tin surface, and therewith less corrosion. This in return, leads to the mitigation of corrosion whiskers.

Features and benefits

- Tin posttreatment with 2-in-1 feature:
 - Enhanced solderability under all extreme conditions
 - Improved heat resistance for a robust assembly process
- Green technology
- Mitigates corrosion whiskers
- Minimizes rejects due to water stains – acts as water shredder process

