

Covertron® 600



Cr(VI)-free pretreatment for plastics' metallization

General Metal Finishing

Plating on plastics

atotech.com



REACH
compliant

non-
PFAS

Approved
by major
OEMs

A new era in Cr(VI)-free pretreatment of plastics

Eliminating Cr(VI) from decorative plating lines

Covertron® 600 is MKS' Atotech latest development in its range of Cr(VI)-free plastic pretreatment process.

The reliable process is able to deliver similar performance and quality as the current Cr(VI) benchmark. Compatible with immersion copper as well as nickel strike, it allows for a simple integration into plating lines.

Covertron® 600 finally eliminates hexavalent chromium from decorative plating lines allowing plating on plastics to fulfill REACH regulations.

The Cr(VI)-free and non-PFAS pretreatment for a large variety of polymers, including most of the currently used plateable resins, but also for more specific applications such as selective plating, completes MKS' Atotech sustainable range of Cr(VI)-free processes for plating on plastics.

Features and benefits

- Process length, quality and performance comparable to Cr(VI) processes
- Simple integration in existing lines
- Applicable for ABS, ABS/PC and 2K/3K/selective materials also high heat ABS (HH-ABS)
- Compatible with immersion copper and nickel strike
- Recycling equipment available to maintain the process at optimum conditions
- Appearance, adhesion and thermocycle approved in automotive, sanitary and construction industry (passed for all major OEMs)
- Controllable with simple analytical methods

Flexible pretreatment process for plastic metallization

A real game changer

Covertron® 600 is a reliable process able to deliver similar performance and quality as the current Cr(VI) benchmark, for a wide variety of plastics in use today, but also for more specific applications such as selective plating. Compatible with immersion copper as well as nickel strike, it allows for a simple integration into plating lines. The process length of Covertron® 600 is comparable to that of conventional hexavalent chromium etching. The required temperatures are much lower reducing energy consumption. A controlled etching mechanism allows to reach adhesion values which are in the range of the current technology used today.

Requirements for appearance, adhesion and thermal cycle fully met

Covertron® 600 is applicable to a wide variety of combinations of parts, molding, resins. The plastics pretreatment process is suitable for ABS, ABS/PC, and ABS (HH-ABS), for 2K, 3K, selective materials as well as other plastics. Resulting appearance, adhesion and thermocycle requirements have been passed for all major OEMs, showing the versatility of the process already during qualification.

Covertron® 600 process sequence and etching patterns

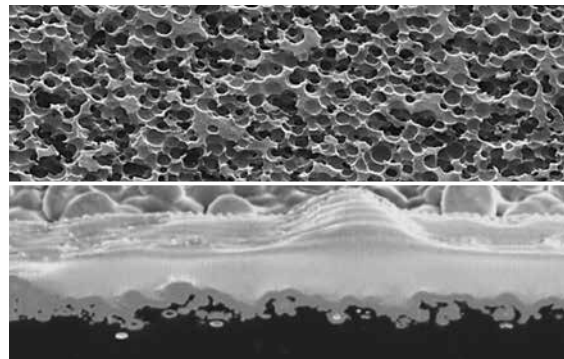
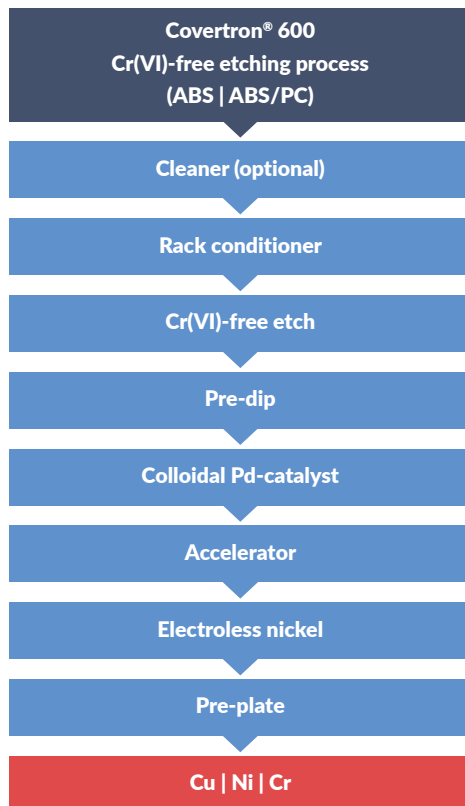


Image 1: Etching patterns of conventional Cr(VI) etching process
Top: SEM image of surface, bottom: FIB cross-section image

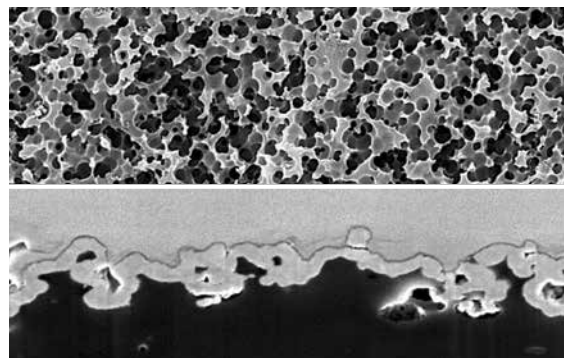


Image 2: Etching patterns of Covertron® 600 etching process
Top: SEM image of surface, bottom: FIB cross-section image

