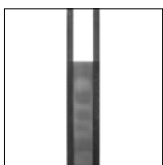
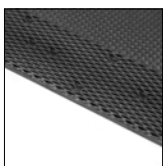


PLATINODE® Cr3

We facilitate the changeover to the chromium(III) process



www.ep.unicore.com

Up to now, chromium(VI) processes have primarily been used for chromium plating. However, due to current environmental and safety aspects, as well as legal developments, chromium(III)-containing processes have been in use for years and are in constant development.

For this conversion we offer our anode system MMO 186 / 187 LOC for decorative chromium(III) processes, as well as our Pt/Nb- / Pt/Ti anodes for Cr6-free etching systems.


umicore
Electroplating

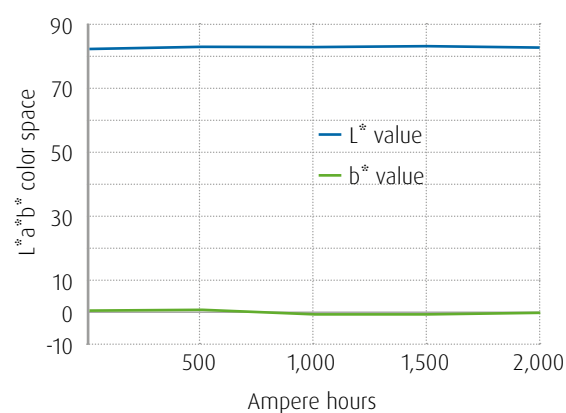


Short delivery times for Pt-Nb / Pt-Ti as well as MMO 186 / 187 LOC anodes are possible thanks to optimized manufacturing.

MMO 186 / 187 LOC anodes for chromium(III) process

The use of insoluble MMO anodes with a special coating structure is indispensable for chromium(III) processes. Our MMO 186 / 187 LOC anode system offers a solution in which all cutting edges and current-carrying components are coated. This coating structure greatly reduces the oxidation of Cr³⁺ to Cr⁶⁺. Even in continuous operation, there is no disturbing concentration of chromium(VI). This is the only way to ensure the necessary stability for the long-term function of the electrolyte and thus also the quality of the coating.

MMO 186 / 187 LOC is tested and specified by renowned electrolyte manufacturers.



The coating results are not influenced by the anodes in terms of color. L* value (brightness) and b* value (color intensity between blue and yellow) are always at a constant level. The other coating properties are also not changed - even at maximum utilization.



During the entire implementation phase, we provide regular service visits to ensure a smooth run-in phase. We adapt the anode designs optimally to your conditions. For this purpose, we work with standardized components.

Together with you, we determine the individual, user-related lifetime by means of an on-site measurement. After the first lifetime cycle, we then jointly determine the warranty period.

Chrome-plated elements are mainly used in the automotive industry, but also in other decorative application areas.





Our Pt/Nb anodes combine the excellent electrochemical properties of platinum with the extremely corrosion-resistant niobium.

Platinum Niobium / Titanium Anodes for Cr6-free etching systems

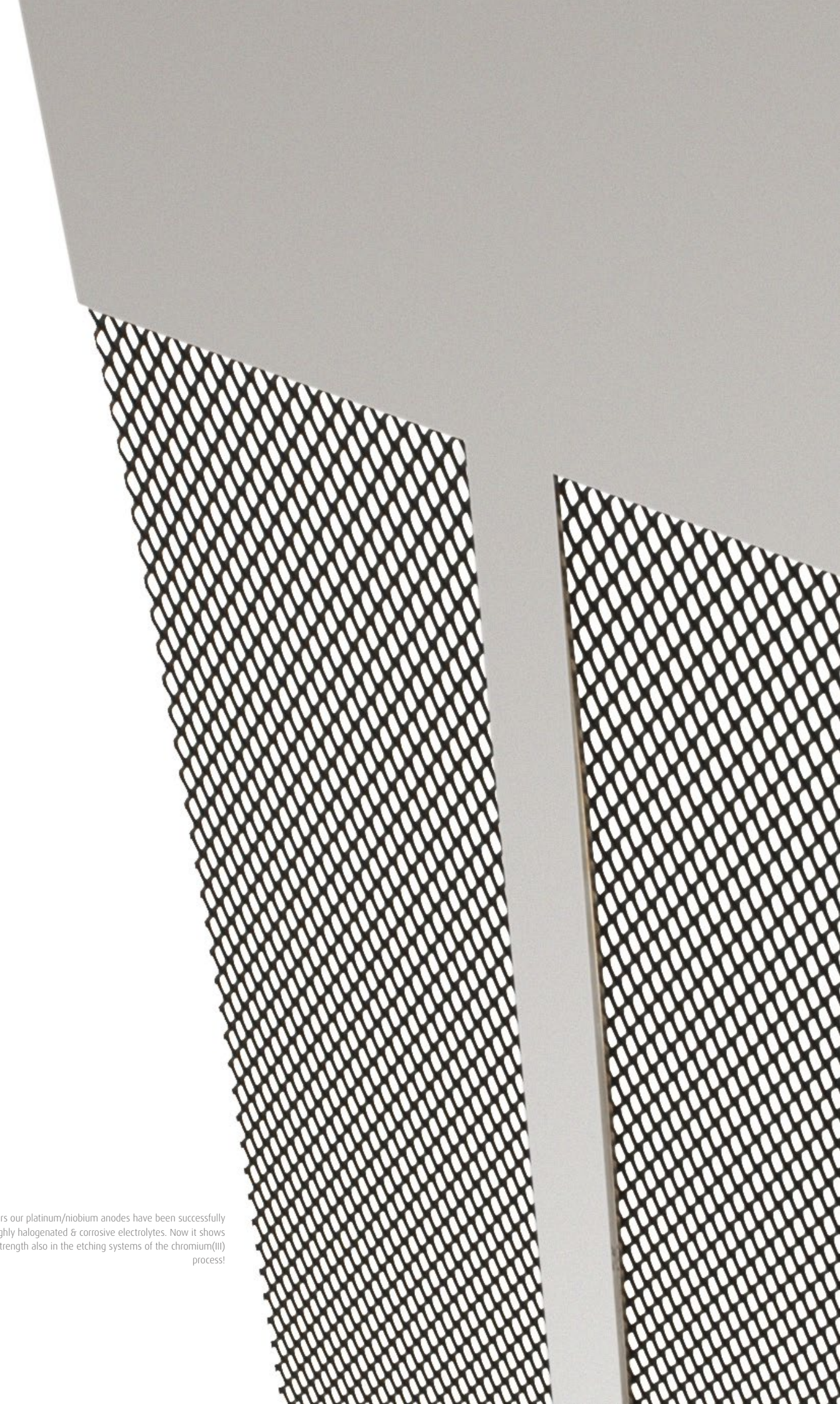
In most of the Cr6-free etching systems, electrolyte components are reduced during the chemical etching process. These components will be electrochemically oxidized in the electrolyte or in an electrolysis compartment and are therefore used again.

This oxidation takes place using platinum-plated niobium / titanium anodes.

Can be used in all customer
Cell designs and oxidation
cells applicable.

The Pt-Nb / Pt-Ti anodes can be used in MSA (=methanesulfonic acid) and phosphoric acid based systems. The effective surface area can be freely selected as required.

For years our platinum/niobium anodes have been successfully used in highly halogenated & corrosive electrolytes. Now it shows its strength also in the etching systems of the chromium(III) process!



Right Composition.
Perfect Surface.



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