



MARKET DEVELOPMENT



LEADING EDGE TECHNOLOGY

# CROMATIPIC® MILESTONES

Hauzer is continuing to develop Cromatipic®, our clean and environmentally friendly alternative to electroplating. In our competence centre in Barcelona (Spain), we are running production in serial conditions and developing new applications. This experience has led to an increased maturity level of our Cromatipic® technology. Many technical specifications need our consideration for interior and exterior automotive trims, such as corrosion and scratch resistance, but also resistance to thermal loads and solar radiation.

Hauzer engineers are working to meet the requested technical standards.

## NICKEL-FREE ALTERNATIVE TO ELECTROPLATING

Daily contact with items that contain and release nickel can cause contact allergies in many people, resulting in rashes, itching and sometimes blistering skin that can last for weeks. For that reason, many countries already have legislation to limit the amount of nickel allowed to be released from consumer products that come in direct contact with skin.

Since the electroplating industry uses Cr(III) or Cr(VI) systems that include layers of copper and nickel coating, it is difficult for them to address nickel allergies. The copper and nickel layers in electroplating, with a cumulative thickness of approximately 30 µm, provide its corrosion and wear resistance properties.

The finishing chromium layer is only 0.3 µm thick and does not offer enough insulation to protect consumers from absorption of nickel after prolonged skin contact. The Cromatipic® coating architecture and its unique composition means that corrosion and wear resistance can be achieved through a process that does not include any nickel and still meets the same high quality standards.

This makes it an excellent alternative for touchable applications, easily meeting the stringent nickel release requirements set for jewellery and body piercings (DIN EN 1811 standard).

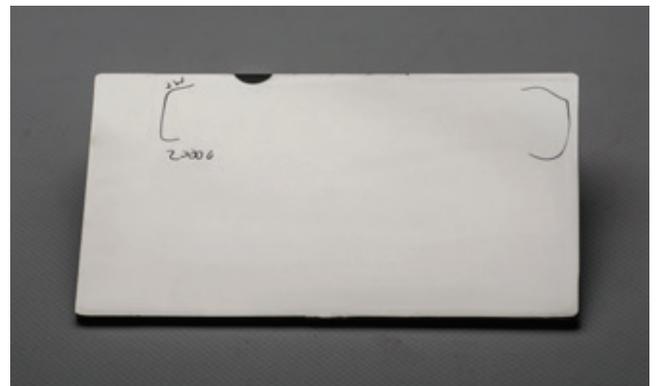
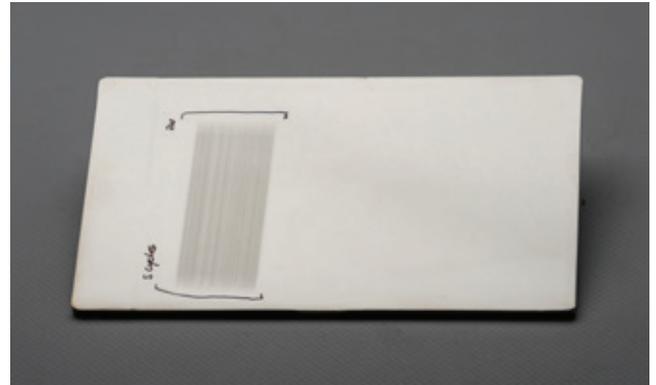
# HIGH-END ABRASION RESISTANCE STANDARDS MET

For automotive and other applications where parts are in constant contact with users, such as door knobs and the surface of home appliances, wear resistance is a critical property. Every original equipment manufacturer (OEM) defines its own abrasion resistance standards.

Hauzer is pleased to be able to report that the Cromatipic® coating meets the high quality standards set by Volkswagen on wear resistance for automotive parts, defined as 2000 strokes dry with a crock meter (VW TL-226 Table 3 section 6.1.3). This is a result of the improvements Hauzer made to the implementation of the Cromatipic® technology, which started with transferring it to an inline system based on the Metalliner® machine. Hauzer process engineers in the Netherlands and Spain have optimised the system as a whole, turning Cromatipic® into a mature production system. This new, robust production process guarantees the high levels of quality needed to meet high-end automotive standards, including those for wear resistance.



Crock meter results for the non-optimised process.



Chinmay Trivedi,  
Senior Process Engineer.



Crock meter results with optimised process.

## In the Next Hauzer For You

The Cromatipic® system uses a lacquer layer based on UV curing technology. In the next Hauzer For You, we will report about the importance of lacquer and how it can be tuned to meet the expectations of our customers.