

Waterman

A software worth its weight in gold

The simulation of electro-depositions has proven its worth with costs saved on deposited metal, reactivity and guaranteed quality.

An electro-deposition tank is a complex electrochemical cell where many parameters may influence the deposition properties. Very often, optimum conditions stem from the electro-former's experience. In light of increased competition, the surface treatment application profession called on Cetim to define a cost-effective and ergonomic "software" solution.

Empiricism in equation

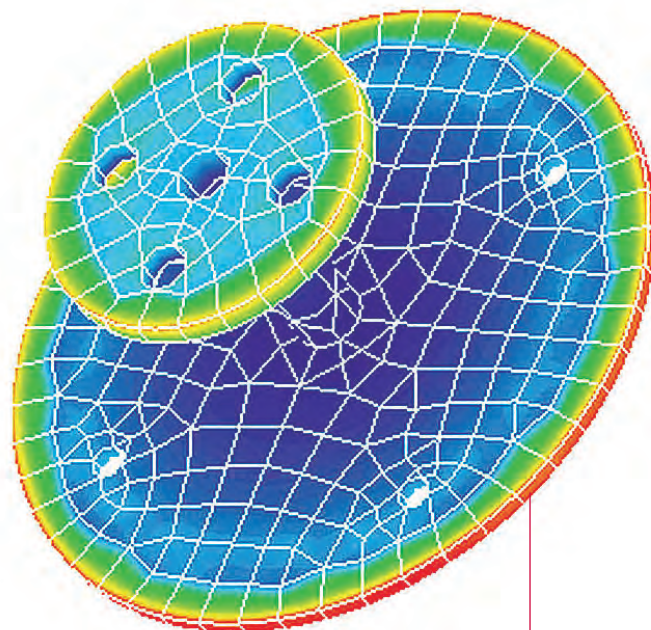
Firstly, Cetim identified all the physical and electrochemical parameters required for performing electro-deposition. It then designed Castor Elec 3D. This software is centred around

an electrochemical database management system and a "modelling software" which analyses the geometric characteristics of the surfaces involved. Simulations optimise the thickness of the deposition by independently acting on each parameter input in the base.

Practical experience full of results

The theoretical results of the simulation, in particular as regards deposition distribution and thickness are confirmed by practical experience. The time saved and the reliability in developing tools are confirmed. Thierry Gendre, production manager at Waterman related:

"We supported this work from



the start as we wanted to save costs on our consumption of precious metals which is approximately 300kg per year. We were actually able to reduce this consumption by 15%. Castor Elec 3D also allowed us to cut back on the design time of our tools by approximately one third. It is already profitable however we think that there is still room for improvement". Beyond this spectacular example – the costs saved amount to tens of thousands of Euros per year – Castor Elec 3D has been used for many industrial applications for all types of electro-deposited materials. Castor Elec 3D, by mastering empiricism is also a tool that enhances competitiveness.

OUR CUSTOMER

Company name
Waterman

Activity
Manufacturing pens

Sales turnover
EUR 83 million

Country
France

Context
The company whose registered office is located in Levallois-Perret employs 750 people in France and is specialised in manufacturing pens



Cetim's asset

Cetim which already has experience in simulating mechanical production processes used its knowledge of surface treatments to identify electrolytic parameters and turn them into a simulation tool.