



IDENTIFYING THE REGULATION LANDSCAPE AND TECHNOLOGICAL ALTERNATIVES TO CHROME VI PLATING



A Major Tool Manufacturer

One of the most important processes when manufacturing tools is to apply an adequate coating. Hexavalent chromium (Cr(VI)) plating has been commercialized for many years but is a human carcinogen and not eco-friendly. Trivalent chromium (Cr(III)) is less toxic, and there are also alternatives to chrome plating on the market and at the early stages of development at universities and R&D centers.

CHALLENGE



The client was starting to transition from Cr(VI) to Cr(III) in their plating facilities and came to PreScouter to learn more about the regional regulations that apply to these coatings, as well as looking into potential alternatives that fulfill requirements such as the following:

- Environmentally & health friendly
- Legally compliant
- Can be processed in house
- Corrosion and scratch resistant
- Low cost

APPROACH



PreScouter divided the work to focus on the regulatory environment and on scouting for solutions that could meet all the requirements. For both channels, PreScouter leveraged its network of Advanced Degree Researchers along with Subject Matter Experts who discussed the options at meetings with the Client.

OUTCOME



PreScouter presented the requested regulatory scenario to the Client and, over the course of 4 weeks, presented 28 alternatives to chrome plating, identified the 10 most promising coatings, and singled out 1 that fulfilled all of the Client's requirements.



PreScouter's regulatory landscaping revealed that the client's operations could run for one year more than they expected, which enabled them to develop the identified solution for their products.