

TRD Chromium carbide coatings for substitution of hard chrome applications

Toxic production of hard chrome

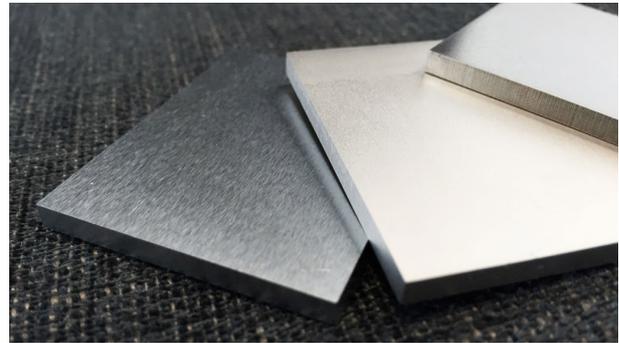
Hard chrome production methods are classified as highly toxic and carcinogenic because of chrome +6 substances and they are to be removed in industrial production in the EU in late 2017 according to REACH Annex XIV. The industry is seeking alternatives for the highly used hard chrome.

TRD as a substitution

TRD Chromium carbide (CrC) is a valid candidate for the substitution of hard chrome because of both its high wear and corrosion resistance. TRD CrC is not produced by any chrome +6 substances.

Hard chrome vs. TRD CrC

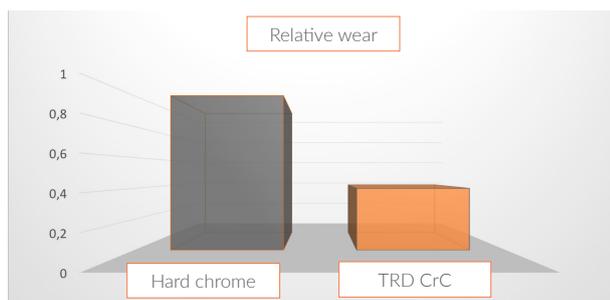
Laboratory wear and corrosion tests of TRD CrC show equal or enhanced wear and corrosion properties. Salt spray chamber tests show similar corrosion properties, while the inherent wear resistance of TRD



TRD Chromium carbide coatings

chromium carbide is more than double compared to hard chrome. Unlike hard chrome, TRD CrC can be produced to final dimensions, without the need for re-grinding.

Contact TRD Surfaces if you are using hard chrome coatings today and let us help you with a sustainable solution.



Performance results of an abrasive Micro Wear Test for hard chrome and TRD CrC coatings. The wear performance of TRD CrC is almost tripled compared to hard chrome.

Hardness



Layer thickness



Tolerance levels



About TRD Surfaces

TRD Surfaces is a high-tech surface engineering company based in Denmark, offering unique solutions for optimal wear and corrosion performance of steel components. We aspire to deliver the best service and constructive dialogue for our customers. We are driven by a desire to understand your challenges, and apply the correct surface engineering to fulfill demands for better performance and increased lifetime.



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