



## The adhesion of protective coatings to novel REACH compliant packaging steel substrates



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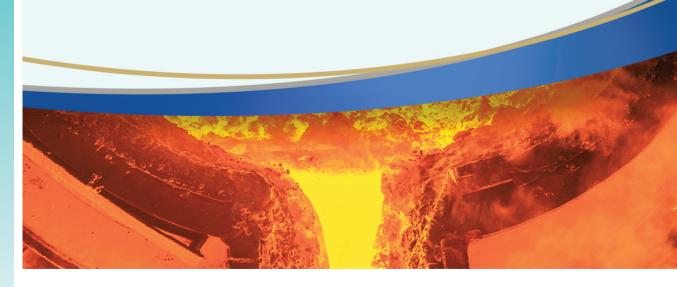
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## ABSTRACT:

This research examines various subject areas pertaining to packaging steel and its ubiquitous use, specifically by exploring how protective coatings adhere to novel chrome plated packaging steel substrates which conform to REACH regulations (substrates which have not been produced using Chrome VI).

It is necessary to insulate both packaging steel substrates and their contents from each other as corrosion and contamination may occur. Packaging steels are usually coated with a protective lacquer, although other protective coatings such as polymer-based laminates are also being used as an alternative due to their chemical stability.

It is the aim of this research to investigate the adhesion and failure mechanisms of lacquered coatings applied to chrome plated substrates which have been passivated, or indeed produced using trivalent chromium as means of depositing chrome metal and inert chrome oxide layers onto the surface of packaging steel substrates.



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