

# Chemical Conversion Coatings of Aluminum

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## Abstract

Chromium phosphate conversion coating and zirconium phosphate conversion coating are widely applied on aluminum prior to painting in order to improve its paint adhesion and corrosion protection.

The surface state of aluminum before conversion coating treatment would give very important influences on the formation of coating and its performance.

The surface conditioning treatment prior to chromium phosphate conversion coating is, for example, effective to improve its water-soaked secondary adhesion.

The chromium phosphate conversion coating film is mainly composed of hydrated chromium phosphate, and the zirconium phosphate conversion coating film is composed of hydrated zirconium phosphate and zirconium oxide.

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