



HCP®-zinc flake coating for screws, springs and stampings

Originally engineered as an environmentally friendly chromium VI-free alternative to plating zinc flake corrosion protection has become a standard in the automotive field. Thus HCP® zinc flake coatings offer superior corrosion protection for high-tensile steel without hydrogen-induced cracking. Constant coefficient of friction, dimensional stability, selection of colours and last but not least excellent corrosion protection are additional outstanding HCP® properties.



Screws

Material: hardened steel

Requirements: e.g. no variations in coefficient of friction, no hydrogen-induced stress corrosion cracking, calibration stability, no red rust after 720 h, silver or black surfaces

Solution: HCP® zinc flake corrosion protection



Springs

Material: spring steel

Requirements: e.g. no structural change due to high process temperatures, no red rust after 480 h, various colours

Solution: HCP® zinc flake corrosion protection



Stampings and injection castings

Material: high-tensile steel, zinc die castings

Requirements: e.g. dimensional stability of clearances, dry lubrication, no red rust after 480 h

Solution: HCP® zinc flake corrosion protection

Pre-treatment and coating processes

Degreasing · blasting · thermal stripping · dip spinning · spraying · phosphating

Coating properties

Cathodic corrosion protection

Barrier protection

Chemical resistance

Heat resistance

Coating thickness

Coefficient of friction

Colour

Approved for food contact

no red rust up to 1000 h (corrosion exposure standard DIN EN ISO 9227)

delays red and white rust and contact corrosion

resistant to acids, alkalines, cleaning agents, oils, gasoline and organic solvents
180°C

6 - 25 µm (depending on coating process)

as required

silver and black (additional colours on request)

yes

Services

We will consult with you on specific requirements to find a tailored coating process for your components. All relevant processing steps will be reviewed and agreed upon with you – from initial sampling to the start of series production. In addition to our technical services we can offer you a tailored logistics package, including pick-up and delivery service, on request.