STAY/STEEL

Stainless Steel Flake Pigments

A member of ALTANA

ECKART
Since the early 50's stainless steel flake pigments have been used commercially in protective coating formulations for metal substrates. Their use is well established in industrial maintenance and specialty coatings and is continually increasing. Stainless steel flake pigments incorporated in a variety of high solids solvent based and water based systems improve the performance of conventional protective coatings.

STAY/STEEL stainless steel flake pigments are delivered as powder. The products are consisting of AISI 316L alloy milled to a uniform particle size. STAY/STEEL pigments act two ways: chemically and mechanically.

Chemically, STAY/STEEL stainless steel flake pigments resist corrosion and ultraviolet attack. Mechanically, they are strong, hard and highly abrasion resistant. STAY/STEEL, being non-leafing, permits the flakes to build up a multi-layer structure tightly bonded to the substrate. As erosion of the coating binder progresses in service, the stainless steel particles become more and more exposed, providing continued protection for the remainder of the coating and substrate beneath. The result is a coating with very long service life and outstanding appearance.

More recently, newly developed low nickel STAY/STEEL LN stainless steel flake pigments have been introduced to the market due to demands from a regulatory standpoint, with the nickel content being less than 0.1%. These low nickel pigments complete the STAY/STEEL product portfolio and offer similar functional properties to the standard STAY/STEEL pigments but have slightly different optical effect, having a bluer shade.

**Corrosion Resistance**
- STAY/STEEL flake pigments are resistant to corrosive conditions
- STAY/STEEL pigments resist deterioration from staining, tarnishing, oxidation and chemical attack

**Resistance to UV Degradation**
- Excellent outdoor stability
- High specific gravity (7.55), forming a multi-layer structure throughout the film preventing UV rays to penetrate

**Moisture Resistance**
- Cost effective solution to make metallic powder coatings which offers good moisture resistance

**Abrasion Resistance**:
- STAY/STEEL pigments are hard, durable and abrasive resistant
- This advantage allows it to be used in industrial flooring applications where mechanical abrasion is a problem

**High Temperature Resistance**
- STAY/STEEL pigments have high thermal conductivity and can dissipate heat effectively
- This helps to prevent temperature build up in the coating layer

**Chemical Resistance**
- Inert to chemical attack
- Are Resistant to acids, alkalis and chemicals and are superior to other commonly used primer pigments
- No chemical encapsulation needed due to inherent stability, which offers an advantage over aluminum pigments
STAY/STEEL stainless steel pigments offer resistance properties in many applications, i.e. bridges, electrical transmission towers, chemical processing equipment with its main area being corrosion protection.

- In powder coatings, a further advantage is the ease in formulating with the STAY/STEEL pigment as an alternative to double encapsulated aluminum pigments – the STAY/STEEL pigment is very stable and therefore, does not require encapsulating which also offers a cost-effective alternative to the treated aluminum.

- STAY/STEEL stainless steel pigments offer a very unique color space and with the introduction of the LN75, the effect gamut has been increased. STAY/STEEL LN75 offers a “sparkle” effect that gives a closer match to the aluminum-type pigment.

- For more information, please contact your local ECKART technical/sales representative.

<table>
<thead>
<tr>
<th>STAY/STEEL</th>
<th>Article number</th>
<th>Particle size D50 [μm]</th>
<th>Comment</th>
<th>Particle Shape</th>
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<tbody>
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<td>316L K Grade</td>
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<td>35</td>
<td>Standard AISI 316L alloy</td>
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<td>High sparkle low nickel grade</td>
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<td>022172</td>
<td>25</td>
<td>Fine particle size low nickel grade</td>
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* Only available for the US market

Standard packaging size: 25 kg (EU)/55 lbs (US)
Standard sample size: 100 gr
Total shelf life of STAY/STEEL products: 24 months
The technical specifications and other information in this leaflet reflect our current knowledge. They are solely intended as general information for our customers. Our customers still bear the responsibility for testing the products to ensure suitability for customers’ intended applications and meeting customers’ end-use requirements. We reserve the right to alter product performance and specifications. Our technical consulting service is available for further advice, technical help in solving problems arising in manufacturing and applications, as well as with product formulations. The customer, however, is responsible for reviewing such data and recommendations prior to using them in an application. We assume no liability for the accuracy and completeness of the data presented on this leaflet or any other technical information we provide.