

Eliminating Pickup |

Hearth (furnace) roll coating solutions for Advanced High Strength Steel (AHSS) production

Preventing pickup on AHSS comes down to coating selection



Situation

Coated furnace rolls used to produce exposed automotive steel are prone to unwanted pickup and roughness loss. A valued customer approached us to try a Praxair Surface Technologies (PST) coating solution on their furnace rolls as their current coating solution was failing prematurely. Their rolls are used to transport steel strip through an annealing furnace in a galvanizing line. The rolls are exposed to temperatures exceeding 950°C (1742°F) and need to resist pickup from, aluminum, manganese, and silicon oxides.

PST Solution

PST applied a Cobalt-based cermet that provides excellent pickup resistance to aluminum, manganese, and silicon oxide spinels. The coating is very durable and can withstand extreme temperatures. The coating contains oxides and carbides to prevent pickup and retain desired surface roughness in service.

Customer Advantages

The new coating solution continues to be successful. No pickup issues have been reported, allowing the customer to meet the high quality targets demanded when making exposed automotive steel.

Preventing pickup on AHSS comes down to coating selection



Prepping



Finishing



Coating



Inspecting

Case Summary

- Existing, competitor's coating solution failed
- Improved coating needed for AHSS production
- Durable, high temperature solution
- No pickup issues from Al, Mn, and Si oxide spinels
- Able to meet quality requirements for exposed automotive steels

Learn more about how PST can work with you to develop a custom solution for your toughest challenges. Visit praxairsurfacetechologies.com or call 1-317-240-2500.

A Linde company



Making our world more productive

Praxair Surface Technologies a Linde company
1500 Polco Street, Indianapolis, IN 46222
Phone +1 317 240 2500, Fax +1 317 240 2255
www.praxairsurfacetechologies.com, psti-info@praxair.com
© Copyright 2021 Praxair S. T. Technology, Inc., All rights reserved