

Emerald Paint-Prep

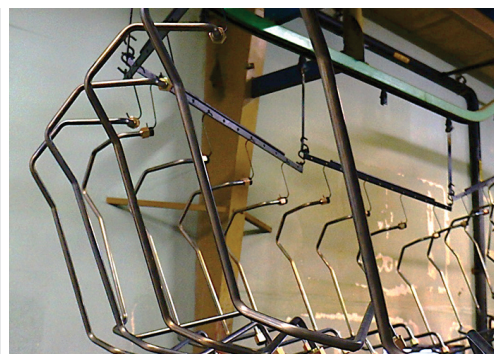
Better Chemistry. **Better Business.**

Non-Phosphate Conversion Coatings

Hubbard-Hall's Emerald Paint-Prep line of low temperature and phosphate-free conversion coatings offer a cost effective alternative to iron phosphate.

Why Zirconium Conversion Coating?

- Effective at room temperature for energy savings.
- Less sludge & no regulated heavy metals for reduced waste.
- Increased corrosion protection.
- Low foaming.
- Short contact time needed: 15-30 seconds.



Featured Products

Emerald Paint-Prep 380 NP

- For the treatment of steel, zinc & aluminum surfaces
- Formulated for 4 to 7-stage spray washers
- Phosphate-free (low phosphate formula available: Paint-Prep 390 LT)

Emerald Paint-Prep 389 NP

- Provides effective cleaning
- Spray wand application

FEATURES	Emerald Paint-Prep 380 NP	Emerald Paint-Prep 389 NP
pH	<3	<5
Recommended Operating Temperature	Ambient	80-110°
Concentration	2-4%	1-5%
Soak Time	15-60 sec.	NA
Phosphate-Free	✓	✓
Spray Wand Application		✓



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Hubfos 150 Process

Better Chemistry. **Better Business.**

Iron Phosphate Conversion Coating

Hubbard-Hall's Hubfos 150 process provides superior corrosion resistance when compared to traditional iron phosphates and many newer phosphate-free technologies. The Hubfos 150 produces a higher coating weight than most traditional iron phosphates that has a synergistic effect with Hubbard-Hall's Emerald Seal 308.

Why Hubfos 150 Process over Non-Phosphate Technologies?

- Iron phosphate is required by specification
- Washer is not in good condition
- Insufficient rinsing with high bath carry over
- Frequent line stoppages and process interruptions
- Corrosive environment leads to flash rusting
- Incomplete or poor cleaning

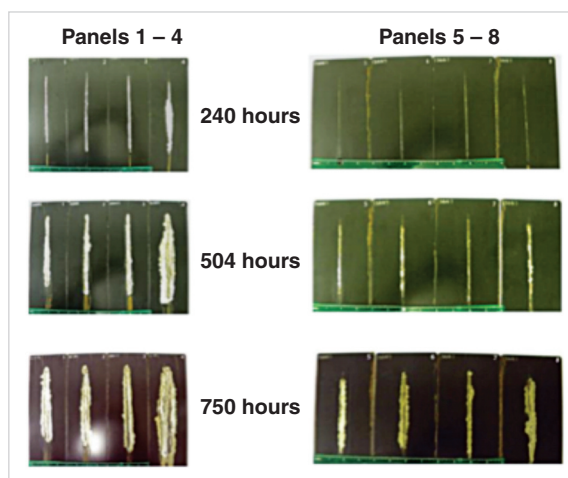


A Winning Team – Hubfos 150 & Emerald Seal 308

Achieve the same paint adhesion results as a competitive non phosphate product by combining Hubfos 150 & Emerald Seal 308.

The Emerald Seal 308, an acidic non-chrome sealer, fills the pores of the Hubfos 150 coating and improves the corrosion resistance over deionized water rinses or many traditional non-chrome sealers by over 300%.

As you will see in the image to the right we ran some ASTM B-117 salt spray analysis per ASTM D-1654 paint adhesion specifications to show 750 hours of protection is achievable with Emerald Seal 308.



**Panels 1 - 4 with typical non-chrome sealer.
Panels 5 - 8 with Emerald Seal 308.**



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