



**BRITISH  
STEEL**

Zinoco<sup>®</sup>  
Corrosion Resistant Rail

For installation info  
scan QR code or visit:  
[www.zinocorail.com](http://www.zinocorail.com)



# Zinoco<sup>®</sup>

## Coating removal and reinstatement

BUILDING **STRONGER** FUTURES

# Zinoco<sup>®</sup> removal

Zinoco<sup>®</sup> is more durable than other coatings

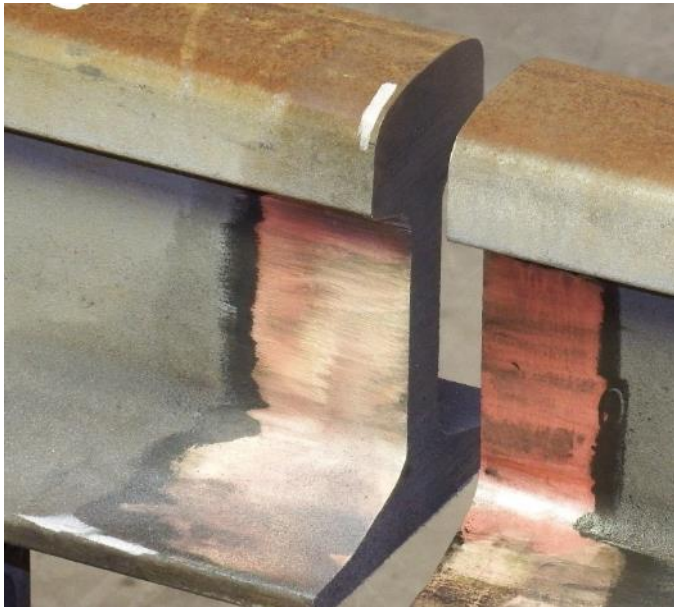


- Coating needs to be physically removed via abrasion (40 grit abrasive) for welding purposes
- Suitable tools
  - 40 Grit Flap disc fitted to an angle grinder
  - 40 Grit Sanding belt fitted to a suitable tool (useful for under foot areas)
- **Standard grinding discs MUST NOT be used**
  - Will clog quickly
  - Smear the coating rather than remove it



Coating removal **essential** for sound welds

# Zinoco<sup>®</sup> removal



- Coating **must** be removed for a minimum of 50mm each end of rails before welding (AT welding).
  - Avoid coating entrapment in weld – weakens weld
- New rails are supplied with the ends already uncoated
  - Coating removal only required for cut-backs / defect removal etc.
- For depot/mobile flashbutt welding
  - Coating removal **is not** required from electrode and clamp contact areas (foot/web)
    - Good electrical contact is retained
    - Coating does not lead to slippage of clamps
  - Coating removal **is** required from rail ends
    - Distance depends upon equipment
    - New rails supplied with 200mm uncoated ends unless specified otherwise
    - Depending on type of weld stripping, longer removal lengths may be required. Advice is available upon request

# Zinoco<sup>®</sup> removal



- Care should be taken to ensure area to be welded is free from coating
- Copper sulphate solution can be used to verify effective coating removal (see overleaf)
- A mirror is often useful for under foot areas

During coating removal the following PPE should be worn by operators in the vicinity of coating removal operations:

- Dust mask to EN149: FFP2S or FFP3S
- Eye protection (goggles)
- Gloves (suitable for hand tool being used)
- Hearing protection (if applicable for hand tool usage)



**Standard welding processes can be used after coating removal from rail ends**

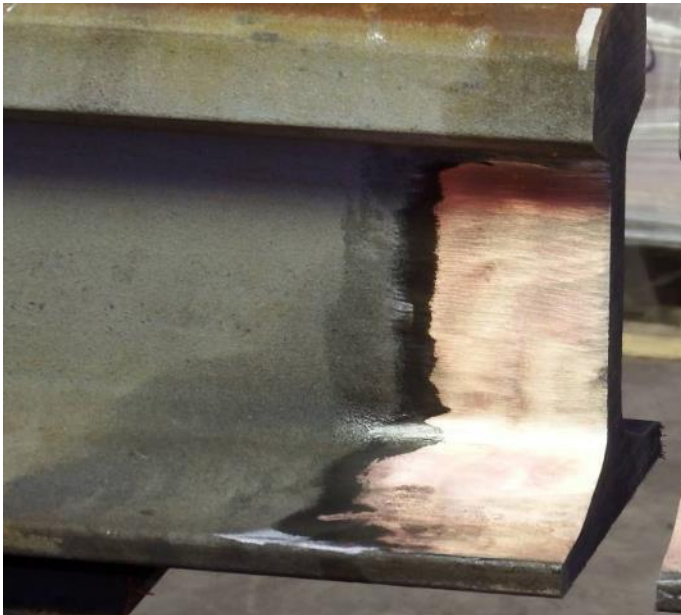
# Zinoco<sup>®</sup> removal – coating removal test



- Complete coating removal is **essential** to ensure sound welds
- To verify spread/spray copper sulphate solution (blue) onto cleaned area

**a** Copper colour indicates effective coating removal

**û** Black indicates incomplete removal - Repeat cleaning and re-test

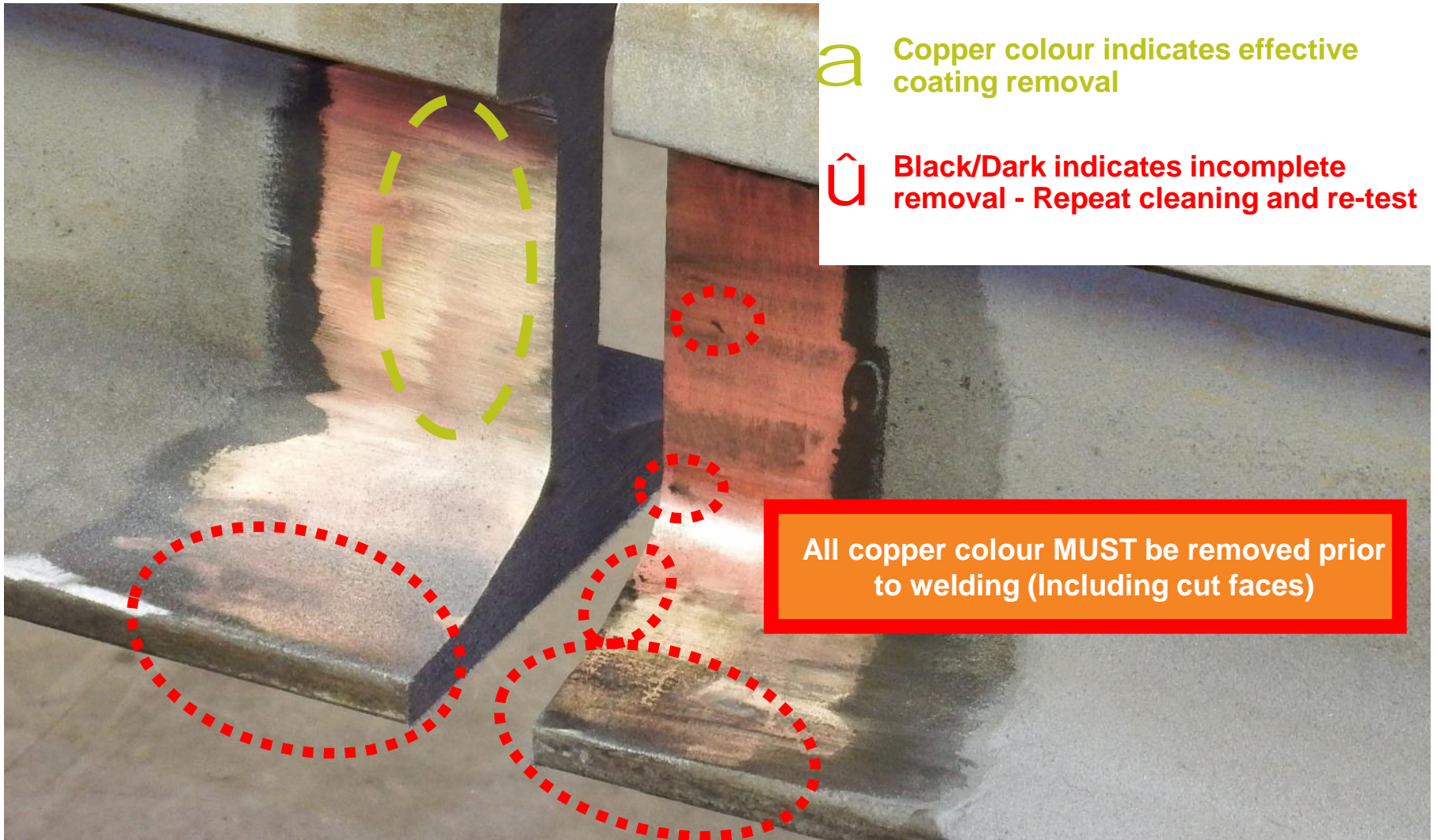


Once all cleaned area is showing copper colour all coating has been removed

**Copper colour must be removed via abrasive disc prior to welding**

**After testing all copper colour must be removed prior to welding**

# Zinoco<sup>®</sup> removal – coating removal test



# Zinoco<sup>®</sup> coating reinstatement – “Touch-up”

- Touch-up kits are available (Part number RCTUK1 / PADS No. 057/060010)
- After welding the compatible Railcote<sup>®</sup> coating should be applied as soon as practicable
- Any oil/grease contamination should be removed with solvent e.g. acetone, using a stiff brush
- Any loose dust/spatter should be removed by brushing/scraping



*Contents of Railcote “Touch-up” repair kit*

# Zinoco<sup>®</sup> coating reinstatement – “Touch-up”



*Example of the “touch up” procedure applied to an aluminothermic weld. **N.B. Image is of an uncoated rail to highlight “touch-up” area.***

- Touch-up procedure is identical to Railcote<sup>®</sup>
- Coating should be **thoroughly stirred** (it will settle in storage)
- No welding or grinding operations should be carried out within, or adjacent to, any areas being where coating applications are being carried out as the solvent is flammable
- Using a brush apply the first coat using a stippling action to ensure all weld porosity is coated (no thinning is required)
- Dependant on environment conditions a second coat can be applied 1 hour later
  - Residual warmth from welding speeds drying process significantly
  - Too hot too touch – too hot to apply coating
- A short pile roller can be used on smooth areas to speed application



# Zinoco<sup>®</sup> coating reinstatement – “Touch-up”



*Example of the “touch up” procedure applied to an aluminothermic weld. **N.B. Image is of an uncoated rail to highlight “touch-up” area.***

- Site environmental conditions will dictate the number of coating applications required
  - **A minimum of 3 coats are recommended to achieve a minimum coating thickness of 120µm**
- Coating should be carried out a minimum of 30 mins before rainfall is anticipated

## PPE requirements

- No compulsory respiratory protection is required in normal “well-ventilated” sites
  - Users sensitised to solvents may use an activated charcoal facemask or other approved facemask suitable for solvents if required
- Protective gloves and glasses are supplied as part of the “Touch-up” kit to prevent contact with skin and eyes