

# POSTLE INDUSTRIES, INC.



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## Data Sheet

# POSTALLOY® 205

### Description

**Ideal for use on manganese steel.** Under severe impact, such as hammering or pounding, deposits quickly become tougher and harder, and will not spall or mushroom. **POSTALLOY 205** may be used alone, as a combination build-up and hardfacing alloy, or used as a build-up and cushion prior to overlaying with a more abrasion resistant alloy, such as 213 or 214.

**POSTALLOY 205** is an all-position electrode for joining or overlaying for high impact. It operates on either AC or DC reverse; the arc is smooth and stable with low spatter loss. Slag removal is easy.

### Specifications

|                             |             |
|-----------------------------|-------------|
| Tensile Strength .....      | 125,000 psi |
| Yield Strength .....        | 80,000 psi  |
| Elongation .....            | 34%         |
| Hardness as deposited ..... | 15 - 22 Rc  |
| Work-Hardens up to .....    | 55 Rc       |
| Deposit Thickness .....     | as required |
| Machinability .....         | poor        |
| Can be flame cut            |             |

### Applications

|                        |                                      |
|------------------------|--------------------------------------|
| Coal crushing segments | Shovel drive sprockets               |
| Dipper teeth and lips  | Bucket teeth                         |
| Pulverizing hammers    | Grizzly bars                         |
| Shovel tracks          | Gear teeth and attaching wear plates |
| Crusher pads           | Railway frogs and switches.          |
| Guard rails            |                                      |
| Shovel idler wheels    |                                      |

### Welding Procedure: AC or DC Reverse.

Clean weld area. Use **POSTALLOY 250** to remove damaged metal. Do not preheat manganese steels. Maintain a short to medium arc. Direct the arc on deposited weld metal depositing 3 to 4 inches at a time (75mm-100mm). Interpass temperatures should be kept low on manganese steel by back-stepping and skip-welding. Skip welding is advisable on large parts. Peening while hot helps shape the deposit and reduce stress. Cool slowly.

|                   |             |              |              |
|-------------------|-------------|--------------|--------------|
| <b>DIAMETER:</b>  | 1/8 (3.2mm) | 5/32 (4.0mm) | 3/16 (4.8mm) |
| <b>AMPERAGES:</b> | 90-130      | 120-150      | 140-175      |

Also available as a semi-automatic wire - **Postalloy 2850-FCO**