

# POSTALLOY® 233HD Data Sheet



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## Description

POSTALLOY® 233HD is a chromium carbide tubular hardface electrode with the addition of Niobium and Molybdenum. The addition of these alloys improve the heat resistance of the weld deposit and wear resistance. Its tubular structure permits higher travel speeds and much higher percentages of carbide forming elements contained in the core than with ordinary flux-coated electrodes. Due to its unique tubular design, POSTALLOY® 233HD offers very smooth operational characteristics and is over 90% efficient. All of the 1/4", 3/8" and 1/2" diameters will fit standard electrode holders.

- Easy out-of-position weldability with the 1/4" diameter
- Excellent AC or DC operation, even on a "buzz box"
- High metal recovery - no slag to chip
- Low amperage and high deposition rates - up to 3 times faster than ordinary electrodes
- Moisture resistant coating, even under severe weather or high humidity.

Weld deposit chemistry consist of chromium carbides combined in such a way as to produce extremely good abrasion resistance coupled with mild to moderate impact resistance. Deposits take on a high polish to resist sliding particle abrasion and will maintain good hot hardness up to 1000°F (538°C).

## Specifications

### Product Type

Flux-coated Tubular Electrode

### Weld Deposit Properties

Hardness: 58-62Rc

Deposit Thickness: 2-3 passes

Relief checks readily to prevent stress build-up.: Cannot be flame-cut

## Applications

Mining and construction screw conveyors

Clamshell and dragline buckets

Bucket lips and teeth

Shredder & Fibrizer hammers

Dozer end bits

Chutes, liner plates

Scraper and grader blades

## POSTALLOY® 233HD Welding Parameters

Current: AC or DC Reverse Polarity

Diameter	Amps
1/4" (6.0mm)	80 - 130
3/8" (9.5mm)	150-180

## Welding Procedure

Remove old hardfacing and any fatigued base metal. POSTALLOY® 250 gouging electrode is useful for this purpose.

Preheat from 200-400°F (93-204°C) is recommended for steels with a carbon content of .25 to .45. Steels with a higher carbon level should be preheated from 400-700°F (204-371°C). Do not preheat austenitic manganese steel. The 1/4" (6mm) diameter can be used for vertical and flat position welding. The 3/8" (8mm) and 1/2" (12mm) sizes should be used for flat only. Use a minimum arc length equal to about the diameter of the electrode. Hold the electrode at 90° to the work surface for proper application. Do not apply more than two layers. On manganese or hardened steel, an intermediate or cushion layer of POSTALLOY® 207 is recommended.

## Packaging Options

Diameter	Standard Packaging
1/4" (6.0mm)	Resealable Plastic Box
3/8" (9.5mm)	Resealable Plastic Box

