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WIRES • POWDERS • STICK ELECTRODES

# RR41

# DATA SHEET

## Hard Surfacing Electrode for Severe Impact

### GENERAL CHARACTERISTICS:

Smooth running electrode with a high deposition rate that produces even, non-cracking welds with long service life under heavy impact. Deposits have outstanding corrosion resistance and work harden under usual working conditions.

### APPLICATIONS:

Repair and build-up of railroad tracks, frogs and switches. Joining high alloy steel to alloy or unalloyed steel. Welding steels with high carbon, sulphur, or phosphorus content. Surfacing low alloy and manganese steels. Commonly used for mill, quarry, and gravel plant crushing hammers, rolls, and mantles. Ideal for construction and mining equipment. Often used as an underlayment for more abrasion resistant materials.

### TECHNICAL DATA:

<b>Typical Tensile Strength</b>	86,000 psi (593 N/mm <sup>2</sup> )
<b>Typical Yield Strength</b>	62,000 psi (427 N/mm <sup>2</sup> )
<b>Elongation</b>	40%
<b>Hardness</b>	As welded 20 HRC work hardened 45 HRC
<b>Current/Polarity</b>	AC or DC Reverse Polarity (Electrode+)

<b>Diameter</b>	<b>Amperage</b>
3/32" (2.4mm)	60-115
1/8" (3.2mm)	90-130
5/32" (4.0mm)	120-160
3/16" (4.8mm)	140-190

### Procedure:

Remove surface that has been hardened or is not sound. Preheating is not recommended. Maintain a medium-short arc keeping it concentrated on the weld deposit to prevent excessive heat buildup in the part. Extra care should be taken to prevent overheating manganese steel because it changes the base metal structure. Peening while still hot helps to shape the part and reduce stresses. Allow to cool slowly.



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