STRATA 192 – Nickel manganese electrode resists extreme abrasion. Welds manganese steel

#### **FEATURES & APPLICATIONS**

For joining and repairing steel and manganese steel pars used throughout the railroad, construction and related industries.

Impact resistant electrode for joining and surfacing steels

- Extra high strength welds
- Welds do not spall
- Outwears ordinary hardfacing alloys in impact conditions as much as 10 to 1

# **ALL WELD METAL ANALYSIS (TYPICAL WEIGHT %)**

Microstructure: Austenite plus ferrite

Flux Colour: Grey

С	Р	S	Mn	Si	Cr	Ni	Мо	Fe
.09	.03	.01	4.3	.3	21.5	9.8	1	bal

### TYPICAL MECHANICAL PROPERTIES

Undiluted Weld MetalMaximum Value Up ToTensile Strength119,000 PSI (830 MPa)Yield Strength72,000 PSI (500 MPa)Elongation41%

Hardness Brinell 200, Rockwell C10 Work Hardness Brinell 520, Rockwell C50



#### **WELDING CURRENT & INSTRUCTIONS**

Recommended Current: DC Reverse (+) or AC

Diameter (mm)	1/8 (3.25)	5/32 (4.0)	3/16 (5.0)
Minimum Amperage	90	120	165
Maximum Amperage	150	210	270

**Welding Techniques:** Do not pre-heat. Use the lowest possible amperage and move the electrode as quickly as feasible. Allow to cool slowly.

Welding Positions: Flat, Horizontal, Vertical up

## **Deposition Rates:**

Diameter	Length	Weldmetal/	Electrodes	Arc Time Of	Amperage	Recovery
(mm)	(mm)	Electrode	per lb (kg) of	Deposition	Settings	Rate
			Weldmetal	min/lb (kg)		
1/8 (3.25)	14" (350)	.94oz (26g)	17 (37)	22 (49)	115	160%
5/32 (4.0)	14" (350)	1.8oz (50g)	9 (19)	16 (35)	150	160%
3/16 (5.0)	14" (350)	2.7 <mark>oz (75g)</mark>	6 (14)	11 (25)	210	160%

#### **APPROXIMATE ELECTRODE PACKAGING & DIMENSIONS**

Diameter (mm)	3/32 (2.5)	1/8 (3.25)	5/32 (4.0)
Length (mm)	14" (350)	14" (350)	14" (350)
Electrodes/lb	9	6	4
Electrodes/kg	20	13	9