

## AI-0207

### Specifications

**AWS/ASME** A5.4 : E307-16 (mod)

**EN ISO** 3851-A : E Z18 9 MnMo R 3 2

### Description and Applications

**AI-0207** is an austenitic high recovery, rutile coated electrode for welding 14% Mn steels, armour steels, hardfaced wear plate, hardening steels, and generally all difficult to weld steels. Use **AI-0207** for welding and surfacing of rails, depositing 1st layer before hardfacing on 14% Mn steels or on steels with unknown composition. Good for applications with high impact or shock loading. Suitable for strain-hardening, very good cavitation resistance, crack resistant, resistant to thermal shock, resistant to scaling up to +850°C. Heat treatment is possible.

Exceptional toughness of the weld metal even at high dilution levels with hard-to-weld steels or when subject to thermal shock. Cryogenic down to -100°C. Stable arc even with AC power.

### Typical Weldmetal Analysis

C	Si	Mn	Cr	Fe	Ni	Mo
0.10	1.5	4.0	19.5	Bal	8.5	0.7

### Mechanical Properties of Weldmetal

	As Welded
Tensile Strength	720MPa
Yield Strength (0.2%)	520Mpa
Elongation	>38% (4d)
Recovery	160%
Hardness	200HB as welded (500HB after work hardening)
Charpy Impact	90J @ 20°C

### Welding

Electrode Diameter (mm)	Length	Current Type	Amps
2.5	350	DC / AC	60-80
3.2	350	DC / AC	80-110
4.0	350	DC / AC	110-140
5.0	450	DC / AC	140-170

Also available as TIG wire: **AI-0207T** and MIG wire: **AI-1707** gas-shielded or flux cored

### Welding Positions

(1G, 1F) Downhand/flat position, (2F) Horizontal position, (2G) Horizontal vertical position, (4G) Overhead position, (3G, 3F, 5G up) Vertical Position Up

### Disclaimer

All figures in this datasheet should be considered indicative only. No guarantee is made as to their accuracy.

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