

AI-1772

Description and Applications

AI-1772 is a tubular wire specially manufactured by a process that enables a high volume of tungsten carbide particles to be encased in a specially designed steel sheath.

Applications include: Oil drill collars, scrapers, Augers and parts subjected to high stress abrasion.

AI-1772 can be applied to cast steels, irons and low alloy steels.

Typical Weldmetal Analysis

60% tungsten carbide in an iron matrix

Mechanical Properties of Weldmetal

	As Welded
Deposit	Magnetic Cannot be Flame Cut
Hardness	62-64 HRc
Machinability	Grinding only
Shielding Gas (Option 1)	Argon + 15-20% CO ₂
Shielding Gas (Option 2)	Argon + 2-5% O ₂ + 30% He

Welding Parameters

Diameter (mm)	Current type	Amps
1.2	DC(+)	150-220
1.6	DC(+)	180-300

Welding Instructions

Successful hardfacing depends on good surface preparation. Surfaces to be hardfaced has to be free of dirt, dust, rust, grease, cracked or suspect base metal should be removed prior to hardfacing. Surfaces should be free of sharp corners and provide maximum support for the hardfacing.

Welding Positions

(1G, 1F) Downhand/flat position, (2F) Horizontal position, (2G) Horizontal vertical position.

Disclaimer

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

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