

AI-1892

Description and Applications

AI-1892 is essentially pure copper wire made exclusively for arc spraying.

Applications: Generally used for its electrical and thermal conductivity. Applications include the provision of conductive surfaces or solderable connections on resistors, carbon brushes, discharge electrodes and earthing conductors on railway carriage axles. It is used for EMI, and static discharge screening on paper conveyors. Its softness makes it useful for surfacing printing rollers. Other non-electrical applications include coatings for purely decorative purposes and elements requiring protective coating.

Typical Analysis

Mn	Si	Sn	Cu
Trace	Trace	Trace	99.90

Coating Physical Properties

Wire Diameter	1.6mm
Deposit Efficiency	70-80%
Melting Point	1,082°C
Bond Strength	17.6 MPa (2560 psi) blasted surface
Coating Tensile Strength	193 MPa (28,000 psi)
Hardness	37 HRb (75 Brinell)
Coating Density	7.5 gm/cm ³
Shrink	0.005cm/cm
Spray Rate	5kg/hr/100amps

Spray Parameters

	Volts	Amps	Air	Distance
Bond Pass	Use AI 1800 Bond Arc for bond wire			
Build Up	33-35	150-350	414-621kPa (60-90psi)	150-175mm

NOTE: Be sure not to overheat substrate as this reduces coating quality. If necessary, stop to allow cooling or use air jet cooling if greater speed is required.

Finishing

Copper can be finished by machining or grinding.

Disclaimer

All figures in this datasheet should be considered indicative only. No guarantee is made as to their accuracy. All figures subject to change without notice. Batch analysis is available for all products sold. Should you require any further information, please contact us at sales@alloysint.com.au

