

AI-1844

Description and Applications

AI-1844 is an austenitic stainless-steel wire and can be sprayed whenever a high corrosion resistant stainless steel is required. Coatings have a high shrinkage. However, note that Arc Sprayed **AI-1844** coatings have a lower shrinkage than gas sprayed. Because of high shrinkage it should not be used for coatings over 2mm thick. Where greater thicknesses are required, it is advisable to first spray 13% chrome steel, **AI-1822** and then finish with the higher shrinkage **AI-1844**.

Applications: Used wherever a coating is required to withstand the higher temperatures needed over zinc or chrome steel and where maximum corrosion protection is desirable. Highly successful results are achieved with **AI-1844** as the final coating to resurfaced paper mill cylinders. Smaller jobs include resurfaced pump plungers, resurfaced impellers, rams, pump sleeves, shafts, seal rings, casings, valve plugs, wedges, and printing press transfer ink rollers.

Typical Analysis

C	Cr	Ni	Fe	Mo
0.06	19.00	12.00	Bal	2.50

Coating Physical Properties

Wire Diameter	1.6mm
Deposit Efficiency	80%
Melting Point	1,427°C
Bond Strength	47.8 MPa (6925 psi)blasted surface
Coating Tensile Strength	207 MPa (30,000 psi)
Coating Texture	Variable *
Hardness	93-97 Rb (275 Brinell)
Coating Density	6.93 gm/cm ³ ** (88%)
Shrink	0.012cm/cm

* Depends on air pressure, standoff, nozzle cap and target size.

**Depends on atomizing air pressure.



ALLOYS INTERNATIONAL PTY LTD

25 Raymond Road Laverton North Victoria 3026

Telephone: +61 3 8368 2222 |

ABN 53 112 712 286

sales@alloysint.com.au | www.alloysint.com.au

Spray Parameters

	Volts	Amps	Air	Distance
Bond Pass	Use AI 1800 Bond Arc for bond wire			
Build Up	26-30	100-250	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

Although the coating can be machined, it is best finished by finishing 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

