

# TECHNICAL DATASHEET Version S21

## AI-1866

## **Description and Applications**

**AI-1866** is a high quality steel wire produced exclusively for metal spraying, where a coating must be machined.

**AI-1866** is a low shrink material which can be sprayed to whatever thickness is required. It will not crack. It is, therefore, THE material to use where a coating will have to endure plenty of wear.

**Applications**: **AI-1866** is used on machine parts such as armature shafts, journal surfaces and parts that have been mis-machined previously.

AI-1866 can also be ground finished if required, thus taking advantage of its superior shrink properties.

## **Typical Analysis**

С	Mn	Cr	Fe	Р	S	Мо
0.07	1.10	2.70	Bal	0.02	0.02	1.00

#### **Mechanical Properties**

	As sprayed				
Tensile Strength	228 MPa (33,000psi)				
Melting Point	870°C approx				
Hardness	220HB approx				
Coating Density	6.78 gm/cm <sup>3</sup> **				
Shrink	0.002cm/cm approx				
Coating Finish (Machined)	Excellend				

### **Spray Parameters**

	Volts	Amps	Air	Distance		
Bond Pass	Use AI 1800 Bond Arc for bond wire					
Build Up	30-32	150-350	414-621kPa	150-175mm		
			(60-90psi)			

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.

#### 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 <a href="mailto:sales@alloysint.com.au">sales@alloysint.com.au</a>



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