

# TECHNICAL DATASHEET Version S21

## AI-1805

## Description

**AI-1805** is a superior *self-bonding* wire made especially for ARC SPRAYING. The outstanding properties of **AI-1805** are the result of oxides formed in the coating, making it highly corrosion resistant. These oxides are stable in a wide range of environments including sulphurous gases, and work by forming a protective film.

This corrosion resistance makes **AI-1805** ideal for use in boilers, heat exchangers, jacket surfaces and gas scrubbers. Other applications include compressor rods in the petrochemical industry, print rolls, digester tanks in the paper industry, High temperature corrosion protection in both acid and alkaline environments, Bearing and seal surfaces, Machinable surfaces, Boiler tubes, Pump housings, Transmissions, Engines, Automotive products. It is an excellent choice as a general-purpose engineering wire.

**Applications**: **AI-1805**, with its high level of chrome, provides very good corrosion resistance. The machinability of this wire is excellent. The coating can be machined to a feathered edge.

#### **Typical Analysis**

Cr	Al	Fe	Others
30.00	5.00	Bal	1.00

#### **Mechanical Properties**

Bond Strength : 56.6-58.6 MPa
Density : 7.25 gm/cm³
Max recommended thickness : 3.0mm

Hardness : HRc 25-33 (converted)
Wire weight : 15.04 gm/linear metre

## **Spray Parameters**

	VOLTS	AMPS	AIR	DISTANCE
BOND PASS	29-31	150	345kPa (50psi)	100-125mm
BUILD UP	29-31	150-350	414-621kPa (60-90psi)	150-200mm

#### **Available Sizes**

### 1.6mm

# 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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