

## AI-0376T

### Specifications

**AS/NZS** 1167.2 : ERNiCrMo-4

**AWS/ASME** A5.14-89 : ERNiCrMo-4

### Description and Applications

**AI-0376T** is a TIG consumable for the welding of Hastalloy® C and Hastalloy® C C 276 to themselves to Stainless Steel or to other Nickel based alloys.

The as welded deposit exhibits outstanding resistance to deformation from cycling or static loads at elevated temperatures.

**AI-0376T** is an excellent choice as an overlay on the nickel based alloys such as Hastelloys and Inconels. Applications

**AI-0376T** is an alloy used for applications where the combined effects of impact, heat and corrosion resistance are required. It has been successfully used for the refurbishment of hot extrusion dies and moulds, die-stamping tools, hot forging moulds and cutting tools. The welded overlay will withstand oxidising atmospheres up to 1100°C.

### Typical Weldmetal Analysis

C	Mn	Si	Cr	Ni	Fe	W	Co	Mo
0.01	0.8	0.06	15.5	Bal	6.0	3.9	0.2	16.0

### Mechanical Properties of Weldmetal

	As Welded
Tensile Strength	740MPa
Yield Strength (0.2%)	600MPa
Elongation (A5)	32%
Hardness	HRc 32-36 (Full Hardness)

### Welding Instructions

Shielding Gas: Argon 100% or Oxy-Acetylene

Gas Rate 15-18 l/min

Procedure for Gas Tungsten Arc (TIG) Welding

1. Thoroughly clean all areas to be joined.
2. For the butt welding of thick plates, bevel edges to 60° - 70 ° included angle.
3. Use a Thoriated or Ceriated tungsten electrode, ground to a sharp needle point making sure the grinding lines run with length (longitudinally) of the electrode's axis. The length of the needle point should be about 2 - 3 times the diameter of the tungsten electrode.
4. Use Direct Current Electrode Negative (DC-) and Welding Grade Argon.
5. Preheat thick sections
6. It is recommended that a pickling paste be applied after welding for cleaning and finishing.



**ALLOYS INTERNATIONAL PTY LTD**

25 Raymond Road Laverton North Victoria 3026

Telephone: +61 3 8368 2222 | Facsimile: +61 3 8368 2200

**ABN** 53 112 712 286

[sales@alloysint.com.au](mailto:sales@alloysint.com.au) | [www.alloysint.com.au](http://www.alloysint.com.au)

#### Available Sizes

2.5, 3.25 and 4.0mm Diameter

#### 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](mailto:sales@alloysint.com.au)

