

## AI-0776

### Description and Applications

**AI-0776** is an alloy comprising cast tungsten carbide particles in a Nickel Silver matrix, which is applied by the Oxy-Acetylene Brazing method. **AI-0776** provides excellent wear resistance to high stress abrasion in components operating at high pressures.

**AI-0776** is easily applied using conventional equipment. The Nickel Silver matrix melts easily (melting temperature approximately 850°C) and the Tungsten Carbide particles are evenly dispersed in a homogeneous weld deposit.

Developed initially for stabiliser applications in the drilling industry many other applications have been found for this product. **AI-0776** has been used successfully in:

Industry	Applications
Brick and clay	Knives, Scrapers
Oil	Stabilizers, Fishing Tools
Mining	Scrapers, Blades, Teeth
Dredging	Teeth, Scrapers
Waterwell Drilling	Bits, Cutters

### Typical Weldmetal Analysis

Cu	Zn	Ni	Wc
25.00	20.00	5.00	50.00

### Mechanical Properties of Weldmetal

	As Welded
Cast Tungsten Carbides	2,000-2,400 HV

### Welding Instructions

Surface to be coated should be clean and free of dirt, grease, scale etc. For ease of application a thin layer of nickel silver (**AI-1106**) should be used to tin the surface prior to applying the **AI-0776**. Use a neutral flame, but with plenty of heat, so the carbide chips can be moved around in the molten pool before it sets.

**CAUTION:** Be sure not to overheat the deposit as once the nickel silver has evaporated and the carbide has become oxidised it is difficult to recover the bond.



#### Available Sizes

1/16" x 1/8"                      1/8" x 3/16"                      3/16" x 1/4"

1/4" x 5/16"                      5/16" x 1/8"                      3/8" x 7/16"

Other sizes available on request.

#### 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)



**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)