

## AI-0779SP

### Description and Applications

**AI-0779SP** is a tubular oxy-acetylene surfacing rod, filled with ultra-hard **spherical cast tungsten carbide** particles and a special nickel, chrome, boron matrix.

The spherical cast tungsten carbide particles are produced with a **new and unique patented melting process**, which makes them the most wear resistant tungsten carbides available today. The spherical cast carbides exhibit an **extremely fine acicular, needle like structure** (as high as 95%) and a very **constant hardness**, yet are **more ductile than crushed cast carbide** or mono-crystalline carbide. The **hardness is up to 33% higher** than any other carbide and **bulk density is 10-20% higher**.

The above features result in a product, which provides significant increases in wear resistance of the welded deposit.

The alloy is specially designed for applications involving extreme abrasion and erosion in combination with corrosion. The matrix material is highly resistant to acids, lyes and other corrosive media.

**AI-0779SP** can be overlaid onto mild steels, low alloys steels, steel castings, nickel based and stainless alloys.

**Applications include:** Drilling Stabilisers, Conveyor Screws, Augers, Scrapers, Mill Plates, Mixer Blades, Drilling Tools, Tillage Points, Ground Engaging Tools etc.

**NOTE:** Care should be taken when welding to use the lowest possible heat input consistent with good bead characteristics to avoid excessive melting of the tungsten carbide particles. Excellent weldability is one of the characteristics of this product.

### Mechanical Properties of Weldmetal

	As Welded
Matrix	56 HRc
Spherical Cast Carbide	3,300 HV (0.1)

### Available Sizes:

4.0mm, 5.0 mm (Standard Stock Size) & 6.0 mm diameter

**Standard Length:** 750mm.

**Pack Size:** 10 kg.

### 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)

