

## AI-0399-CI-T

### Description and Applications

A high quality MIG welding wire for joining, fabricating and repair welding of nodular, SG and grey cast irons.

Weldments of **AI-399-CI-T** do not contain any iron (Fe) and thus do not pick up any hardness from the parent material being welded. For this reason, **AI-399-CI-T** is an excellent choice where a single run deposit is required.

The high percentage of Nickel (99.6%) results in a tough weldment that can withstand fretting and spalling where two surfaces may be running together.

**Applications include:** Welding of the above cast irons to each other and/or steel.

### Typical Weldmetal Analysis(%)

C	Mn	Si	S	Ni	Fe	P
0.05	0.22	0.05	0.001	99.6	0.05	0.002

### Mechanical Properties of Weldmetal

	As Welded
Tensile Strength	414 MPa 65,000 Psi
Yield Strength (0.2%)	255 MPa 37,000 Psi
Elongation (A5)	27%

### Welding Parameters

Diameter (mm)	Current type	Amps
1.2	DC/AC	150-220
1.6	DC/AC	180-300

### Welding Instructions

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.



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### Welding Instructions

Shielding Gas: Argon 100%

Gas Rate: 15-18 l/min

### 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)

