

## AI-1755CI

### Specifications

**AWS/ASME** A5.15 ERNiFe-CI  
**ISO** S C NiFe-CI

### Description and Applications

**AI-1755CI** is a newly developed gas shielded solid MIG wire offering high speed; high quality welds with either manual, semi-automatic or fully automatic processes. The alloy is designed specifically to allow 100% joint efficiency in common grades of ductile iron, high strength cast irons and for joining these alloys to cast and mild steels.

**AI-1755CI** is designed to weld in all positions and deposition rates as high as 8kg per hour and travel speeds of up to 1270mm per minute are possible.

Pre- and post-weld heat treatments are not usually required but may be advantageous for heavy section, fully restrained joints in low ductility castings.

**Applications:** **AI 1755CI** is used for welding of cast irons to themselves and other materials, for repairing worn or broken parts and for salvaging defective castings where highest mechanical strength is required.

**AI 1755CI** offers high quality weldments made with 1.2mm and 1.6mm diameter wires. It can be used with all robotic, automatic and semi-automatic processes.

**AI 1755CI** provides the wetting and crack-resistant weldability that allows steel forgings and castings to be redesigned in less expensive ductile iron and still be automatically welded. Typical production line applications include drive shafts, hydraulic and pneumatic cylinders, conveyor rolls, self-anchoring joints etc. Maintenance applications include roll rebuilding, crack repair, casting defect repair etc.

### Typical Weldmetal Analysis

C	Ni	Fe
1.20	Bal	45.00

### Mechanical Properties of Weldmetal

	As Welded
Tensile Strength	<579 MPa (84,000psi)
Yield Strength (0.2%)	<360 MPa (52,200psi)
Elongation	22%
<b>Shielding Gas</b>	<b>98% Ar +O<sub>2</sub> or 100% Ar</b>

### Welding Parameters

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



### Welding Positions

(1G, 1F) Downhand/flat position, (2F) Horizontal position, (2G) Horizontal vertical position.

### Disclaimer

All figures in this datasheet should be considered indicative only. No guarantee is made as to their accuracy.

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