

## AI-1769

### Description and Applications

A high quality, gas shielded complex carbide alloy giving exceptional resistance to all types of high stress, low stress and gouging abrasion with low impact. The alloy is manufactured in small diameters (1.2 & 1.6 mm) to allow the ultimate in abrasion resistant surfacing on small components. Deposit achieves full hardness in first layer.

**Microstructure:** Primary carbides and  $M_7C_3$  Eutectic carbides, Nodular Niobium carbides (spherical) and Chromium Borides in a eutectic type matrix.

**Deposit Thickness:** Max. 6mm in 2 layers. The deposit will crack readily. **AI-1769** is recommended for applications involving severe high stress abrasion combined with low impact at temperatures not exceeding 300°C.

**Applications include:** Groundnut oil expeller screws, brickwork extruder augers and mixers, wear plates, screens in the coal industry, sand pumps, chutes and handling equipment.

### Typical Weldmetal Analysis

C	Mn	Si	Cr	Fe	B	Nb
3.00	1.80	1.00	15.50	Bal	2.10	5.50

### Mechanical Properties of Weldmetal

	As Welded
Abrasion Resistance	Exceptional
Impact Resistance	Poor
Deposit Efficiency	92%
Hardness	69 HRc
Wear Index	0.2%
(Grit) 1 layer	24%
Machineability	Grinding
<b>Shielding Gas</b>	<b>Ar + 20-25% CO<sub>2</sub></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.

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)



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