

AI-1776

Specifications

ASW/ASME A5.14: Er Ni Cr Mo-4

Description and Applications

AI-1776 is a gas shielded, solid wire designed for joining and / or overlaying NiCrMo alloys. It can be used for joining NiCrMo alloys to themselves or to other nickel based alloys, to carbon steels, to low alloyed steels or to stainless steels. The as welded deposit exhibits outstanding resistance to deformation from cycling or static loads at elevated temperatures.

AI-1776 is an excellent choice as an overlay on the nickel based alloys such as Hastelloys, Inconel and Illiums.

Applications: **AI-1776** is an alloy used for applications where the combined effects of impact, heat and corrosion resistance are required. It has been successfully used for the refurbishment of hot extrusion dies and moulds, die-stamping tools, hot forging moulds and cutting tools. The welded overlay will withstand oxidising atmospheres up to 1100°C.

Typical Weldmetal Analysis

C	Mn	Si	Cr	Ni	Fe	W	Co	Mo
0.01	0.8	0.06	15.5	Bal	6.0	3.9	0.2	16.0

Mechanical Properties of Weldmetal

	As Welded
Tensile Strength	740MPa
Yield Strength (0.2%)	600MPa
Elongation (A5)	32%
Hardness	HRc32-36(full hardness)
Shielding Gas	100% Argon

Welding Parameters

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

15kg spools

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



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