

AI-17220

Specifications

AWS/ASME A5.9/A5.9M : ER2209
AS/NZS ISO 14343 BSS2209

Description and Applications

AI-17220 is a duplex stainless steel with 22.5%Cr-8.5%Ni-3%Mo-0.15%N. It has higher strength and excellent resistance to pitting and stress corrosion cracking.

AI-17220 is a gas shielded MIG alloy that can also be used for overlay and depositing ferritic-martensitic steel designed to resist metal-to-metal wear, corrosion and thermal fatigue.

Applications: Suitable for continuous casting rolls, valve seats, impellers, steam turbine parts.

Typical Weldmetal Analysis

C	Mn	Si	Cr	Fe	Ni	Mo	N
0.015	1.55	0.43	22.71	Bal	8.52	3.01	0.15

Mechanical Properties of Weld Metal (with shielding gas Ar +2%O₂)

	As Welded
Microstructure	Martensite + ferrite
Machinability	Good with metallic carbide tipped tools
Tensile Strength	810 MPa
Yield Strength	620 MPa
Elongation	28%
Oxyacetylene cutting	Cannot be flame cut
Deposit thickness	Depends upon application and procedure
Hardness	30-35HRc
Shielding gas	Ar + 1-2% O ₂ for high current, spray transfer welding, or Ar + 1-2% CO ₂ for low current, short-circuit transfer welding

Welding Parameters

Diameter (mm)	Current type	With Ar +1-2%CO ₂		With Ar +1-2%O ₂	
		Amps	Volts	Amps	Volts
0.9	DC(+)	60-140	15-21	170-260	24-30
1.0	DC(+)	80-160	16-22	180-280	24-30
1.2	DC(+)	100-210	17-22	200-300	24-30

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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