

GMAW Wire for Nickel and Nickel-Based Alloy

KMS-625

Classification

AWS A5.14/A5.14M	ERNiCrMo-3
JIS Z3334	SNi6625
EN ISO 18274	S Ni 6625
GB T15620	S Ni 6625

Shielding Gas:75% Ar+25%He

Applications and Features

- (1) KMS-625 is 61%Ni-22%Cr-9%Mo-3.5%Nb alloy.
- (2) Excellent corrosion resistance and high strength over broad temperature range. The highest service temperature is up to 540°C.
- (3) Suitable for welding 9%Ni steel, Inconel 601, 625, 718, Alloy 20, 45 and ASTM B443, B444, B446Ni-Cr-Mo alloy.

Welding Position



Welding Instruction

- (1) Clean surface of base metal before welding.
- (2) Heat input should be controlled as low as possible.
- (3) For other instructions, please refer to Appendix B.

Typical Chemical Composition of Wire (wt%)

C	Si	Mn	P	S	Cr	Mo	Fe	Nb	Ni
0.01	0.07	0.06	0.006	0.001	22.15	8.71	0.37	3.71	64.30

Typical Mechanical Properties of Weld Metal

Tensile Strength	Yield Strength	Elongation	Charpy V-Notch	
N/mm ²	N/mm ²	%	°C	J
783	492	40	-196	122

Size and Suggested Operating Range (DC+)

Diameter (mm)	0.8	0.9	1.2	1.6
Current (A)	140~180	160~200	190~230	200~250
Voltage (V)	24~27	25~28	26~30	29~33