



KUANG TAI

KMS-61

Product Data Sheet

Gas Metal Arc Welding Wire for Ni-Based Alloy

Specification

AWS A5.14 *ERNiCrMo-3*

Applications

- Used for MIG welding of Ni-Cr-Mo alloys.
- This filler metal may be used for cladding and welding dissimilar base metals such as Ni-Cr-Mo alloys to stainless and carbon steels.

Characteristics

- The Ni-Cr-Mo alloy system provides excellent resistance to oxidizing and reducing environments
- The high molybdenum content provides good stress, pitting and crevice corrosion resistance.
- Most popular nickel alloy for cladding.

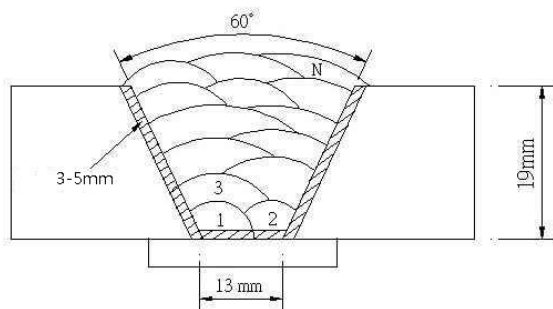
Note on Usage

- Use with Argon + 2~5% O₂ or 75% Argon + 25% Helium

Mechanical Properties & Chemical Composition of All Weld Metal

Welding Conditions

Method by AWS Rules



Diameter(mm)	1.2mm
Shielding Gas	Argon + 2% O ₂
Flow Rate (l/min)	20
Amp / Volt	180 / 28
Stick-Out (mm)	10-15
Interpass Temp (°C)	150±15
Polarity	DC(+)

[Joint Preparation & Layer Details]

● **Mechanical Properties of the Weld Metal**

Brand Name	Tensile Test Results			Charpy V-Notch Impact Value (Joules)		
	Y.S. (MPa)	T.S. (MPa)	EL. (%)	+20°C	-40°C	-196°C
KMS-61	496	783	46	180	178	160
AWS A5.14 ERNiCrMo-3	-	760 min.	-	-	-	-

● **Chemical Analysis of the Weld metal**

Brand Name	C	Si	Mn	Cr	Ni	Mo	Nb	Fe	Unit: wt%
									FN (WRC-92)
KMS-61	0.02	0.13	0.07	21.17	61.1	8.06	3.21	3.6	0

● **Chemical Analysis of the Wire**

Brand Name	C	Si	Mn	Cr	Ni	Mo	Nb	Fe	Unit: wt%
									FN (WRC-92)
KMS-61	0.03	0.11	0.06	21.55	61.65	8.49	3.37	3.9	0
AWS A5.14 ERNiCrMo-3	<0.1	<0.5	<0.5	20-23	<58.0	8-10	3.15-4.15	<5	-

Available Sizes and Suggested Operating Range

	Wire Diameter (mm)		
	0.9mm	1.2mm	1.6mm
Amperage	150-190	160-220	200-250
Voltage	24-28	24-32	26-34

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