KW-M625

(NICKEL ALLOY SOLID WIRE)

KISWEL

Rev.1

KW-M625

KISWEL

■ Description & Application

- **Ni alloy MIG welding consumable for Inconel 625, Incoloy 825**
- **It can be used for surfacing of 9% Ni steels or dissimilar welding of Inconel to stainless steels.**
- **The weld metal has high strength and good corrosion resistance at broad temperature.**

■ Classification

- **AWS A5.14 : ERNiCrMo-3**
- **KS B 18274 : SNi6625**
- **JIS Z 3334 : SNi6625**
- **EN ISO 18274 : SNi6625**
- **EN ISO 18274 : NiCr22Mo9Nb**

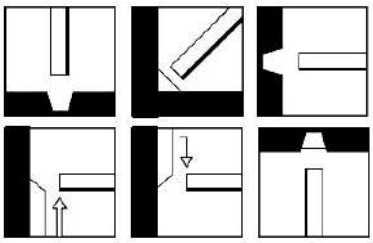
■ Typical Chemical Composition of Wire (%)

	C	Fe	Ni	Cr	Nb	Mo
AWS ERNiCrMo3	≤0.10	≤5.0	Min 58.0	20.0-23.0	3.15-4.15	8.0-10.0
EN ISO SNi6625	≤0.10	≤5.0	Min 58.0	20.0-23.0	3.0-4.2	8.0-10.0
KW-M625	**0.01**	**0.23**	**64.5**	**22.2**	**3.7**	**8.7**

■ Shielding Gas

- **Ar 99.99% (15~25ℓ/min)**

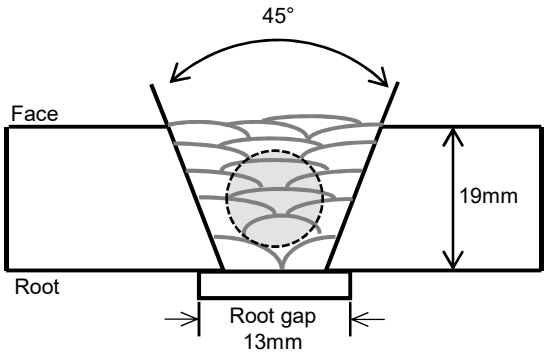
■ Welding Position



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■ All Weld Metal Test Specimen



Base metal	STS 285 Butted by wire
Diameter	1.2mm
Current / Voltage	230A /24V
Stick out	20mm
Travel Speed	45 CPM
Welding Position	PA / 1G

■ Typical Mechanical Properties of Weld Metal

	Shielding Gas	PWHT	Y.S (MPa)	T.S (MPa)	El. (%)	IV (J) (Joule @ Temp)
AWS ERNiCrMo-3	-	-	-	≥ 760	-	-
EN ISO SNi6625	-	-	-	≥ 760	-	-
KW-M625*	**Ar 99.99%**	**AW**	**507**	**773**	**54.5**	**192 @ 0℃ 101 @ -196℃**

* Hardness of weld metal : HRC 21~24

■ Typical Operating Procedures

Dia (mm)	Shielding Gas	Current (amps)	Voltage (volts)
0.9	99.99% Ar	150-190	26-29
1.2	99.99% Ar	180-220	28-32

* Polarity : DCEP (DC+)

■ Wire surface




* To improve feed ability, Proper surface roughness

■ Bead appearance (Bead on plate)

Mode	Current (A)	Voltage (V)	Travel SP (CPM)	Base Metal	Thickness (mm)	Stick out (mm)	Shielding Gas
Inverter	180	22	40	STS 304	5	15	99.99% Ar



Mode	Current (A)	Voltage (V)	Travel SP (CPM)	Base Metal	Thickness (mm)	Stick out (mm)	Shielding Gas
Inverter	240	26	40	STS 304	5	20	99.99% Ar



■ Corrosion test (ASTM G48 Method – A)

TESTING CERTIFICATE

KIMS Korea Institute of Materials Science
797 Changwondaero, Sungsan-gu, Changwon-si, Gyeongsangnam-do, 642-831, Korea
Tel : 055-280-3784, Fax : 055-280-3788

Certificate No. : 1533-0251-01379

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1. Client
- ○ Name : KISWEL
- ○ Address : #704, GONGDAN-RO, SEONGSAN-GU, CHANGWON-SI, GYEONGNAM, KOREA
- ○ Date of Receipt : Apr. 24, 2015

2. Use of Certificate :

3. Test Sample
- ○ Product Name : A18(KW-M625)
- ○ Material Property : AWS A5-14 ERNiCrMo-3 ○ No. of Item : 1 ea.

4. Date of Test : May. 01, 2015 ~ May. 08, 2015

5. Test Method used : -

6. Testing Environment
- ○ Temperature : (25 ± 2) ℃, ○ Humidity : (40 ± 3) % R.H.

7. Test Results

○ Ferric Chloride Pitting Corrosion Test

Sample No.	Test Result (g/㎡)
A18	No pitting(0.229)

Related Standard : ASTM G48 Method-A
Testing(dipping) Time : 72hours
Testing Temp. : 25 ± 1℃

Affirmation	Tested by Name : Yoon, Jum Kyu	Approved by Name : Yang, Won Jon

The above testing certificate is based on the test results of the test sample(s) submitted by the client.

May. 08, 2015

Hai Doo Kim
Korea Institute of Materials Science

Note: 1. The results shown in this testing certificate refer only to the sample(s) tested and KIMS do not guarantee the quality of all products of the customer.
2. This certificate cannot be reproduced except in ful, without the written approval of KIMS.

KIMS-TT-F-003 www.kims.re.kr

KW-M625

■ Packaging



■ Size and Weight

Dia. (mm)	0.8, 0.9, 1.0, 1.14, 1.2, 1.32, 1.4, 1.6			
Weight (kg)	2	5	12.5, 15, 20	100~200
Packaging	Plastic Spool			Pail-pack
	-		Wire Basket	

■ Handling

• Do not speed up or brake loaded products to prevent rollover during transport.

• Please run out product within two weeks of its packaging release.

• If the product is discontinued for more than two weeks, it should be packed and stored separately to prevent air contact.

• Products that are in use on the supply line must be prevented by covering to prevent product contamination and electric shock accidents.

• When using Drum or DPP, check the enclosed installation and handling manual, and use it after proper installation.

■ Storage

• Do not stock Drum or DPP packaging palettes more than 2 layers and Spool or Wire basket packaging palettes more than 3 layers. To prevent damage to the products and external packaging.

• Store the product without removing the packaging to prevent air contact.

• To prevent product packaging damage and condensation due to moisture. Keep the product at a relative humidity of less than 50%

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The Management System of KISWEL LTD, 704, Gongdan-ro, Seongsan-gu, Changwon-si, Gyeongnam 51544, Republic of Korea, 70, Saebyeok-ro 63beon-gil, Sasang-gu, Busan 47018, Republic of Korea has been approved by Lloyd's Register Quality Assurance to : IATF 16949:2016, ISO 14001:2015, applicable to : Manufacture of solid welding wires & rods, flux cored wires, submerged arc welding wires & fluxes, stainless steel welding wires & rods and covered electrodes.
More information : www.kiswel.com

