ZO-110

SOLID WELDING WIRE

FOR 760MPA HIGH STRENGTH STEEL

KISWEL

Rev.0

■ Description & Application

- 건설기계, 중장비, 압력용기 등의 760MPa급 고장력강의 맞대기 및 필렛 용접용 솔리드 와이어 입니다.
- 고전류 용접영역에서도 안정적인 용접성을 나타냅니다.
- 혼합가스 사용으로 스패터 발생이 적어, 아름다운 용접 외관을 얻을 수 있습니다.

■ Classification

- **AWS A5.28-2005 : ER110S-1**
- **EN ISO 16834-A : G 69 4 M21 Mn3Ni1CrMo**

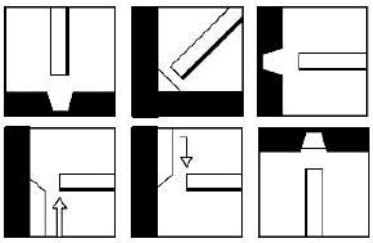
■ Typical Chemical Composition of Wire (%)

Spec.	Chemical composition (%)						
	C	Si	Mn	P	S	Ni	Mo
EN 16834-A Mn3Ni1CrMo	≤0.12	0.40 ~0.70	1.30 ~1.80	≤0.015	≤0.018	1.20 ~1.60	0.20 ~0.30
일례	0.08	0.53	1.68	0.011	0.005	1.40	0.24

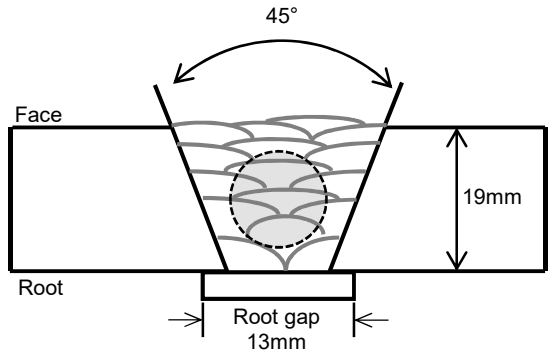
■ Shielding Gas

- Ar + 20%CO_2 (15~25ℓ/min)

■ Welding Position



All Weld Metal Test Specimen



Base metal	A515 Gr.70
Diameter	1.2mm
Current / Voltage	300A / 27V
Stick out	20mm
Travel Speed	30 CPM
Welding Position	PA / 1G

Typical Mechanical Properties of Weld Metal

	Y.S (MPa)	T.S (MPa)	El. (%)	IV (J) (Joule @ Temp)	Shielding Gas	PWHT
AWS ER100S-G	-	≥ 760	-	-	-	-
EN Mn3Ni1CrMo	≥ 690	770-940	≥ 17	≥ 47@-45℃	**Ar + 20%CO_2**	AW
ZO-110	**756**	**845**	**19**	63 @-45℃	**Ar + 20%CO_2**	AW
				56 @-50℃		

Typical Operating Procedures

Dia (mm)	Shielding Gas	Current (amps)	Voltage (volts)	Feed speed (m/min)	Melt-off Rate (Kg/Hrs)
1.2	Ar-20%CO_2, Ar-2%O_2	280-340	27-30	8.5-12.5	4.2-6.2
1.4		300-440	30-34	7.5-12.5	5.1-8.5
1.6		320-440	28-32	5.5-7.5	4.9-6.7

* Polarity : DCEP (DC+)

■ Packaging



■ Size and Weight

Dia. (mm)	0.9, 1.0, 1.14, 1.2, 1.32, 1.4, 1.6			
Weight (kg)	2	5	12.5, 15, 20	100~450
Packaging	Plastic Spool			Pail-pack / DPP
	-		Wire Basket	

■ Approval

Shielding gas	ABS	BV	DNV GL	LR	KR	NK
CO2	-	-	-	-	-	-
MIX	-	-	-	-	-	-

KISWEL

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

