T-50

490MPa Grade
TIG ROD

KISWEL

Rev.0

T-50

KISWEL

■ Description & Application

- **For mild steel and 490MPa tensile strength steel welding of structural steels, Machineries and vehicles.**
- **Excellent mechanical and toughness properties in low temperature conditions.**
- **It is generally used in root pass welding of pipes in all positions.**

■ Classification

- **AWS A5.18-2005 : ER70S-6**
- **KS D 7145 : YGT50**
- **JIS Z 3316-2009 : W 49 A 3U 6**
- **EN ISO 14341-A : W 46 3 3Si1**
- **EN ISO 14341-B : W 49 A 3U 6**

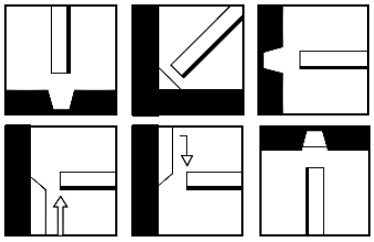
■ Typical Chemical Composition of Wire (%)

	C	Si	Mn	P	S	Cu
AWS ER70S-6	0.06-0.15	0.80-1.15	1.40-1.85	≤0.025	≤0.035	≤0.50
EN ISO 3Si1	0.06-0.14	0.70-1.00	1.30-1.60	≤0.025	≤0.025	≤0.35
T-50	**0.07**	**0.82**	**1.52**	**0.012**	**0.015**	**0.10-0.20**

■ Shielding Gas

- **100% Ar (15~25ℓ/min)**

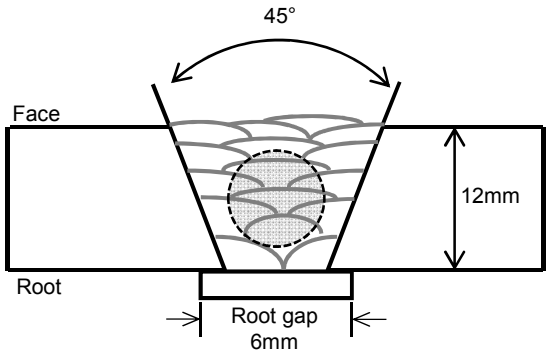
■ Welding Position



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■ All Weld Metal Test Specimen



Base metal	A516 Gr.70
Diameter	2.4mm
Current / Voltage	240A / 15V
Travel Speed	12 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 ER70S-6	-	AW	≥ 400	≥ 480	≥ 22	≥ 27 @ -30℃
EN ISO 3Si1	Ar	AW	≥ 420	530~670	≥ 20	≥ 47 @ -30℃
T-50	**Ar**	**AW**	**490**	**580**	**30**	**117 @ 0℃ 110 @ -30℃**
T-50	**Ar**	**PWHT**	**430**	**530**	**36**	**193 @ -50℃**

※ PWHT : 610℃, 12Hrs

■ Typical Operating Procedures

Dia (mm)	Current (amps)	Voltage (volt)
0.9, 1.0	50-80	10-12
1.2	70-120	10-12
1.6	90-170	11-16
2.4	100-200	13-20
3.2	120-250	13-22

※ Polarity : DCEN

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■ Packaging





■ Size and Weight

Dia. (mm)	0.9, 1.0, 1.14, 1.2, 1.6, 2.0, 2.4, 3.2, 4.0, 4.8
Weight (kg)	4.5(10lb), 5
Length (mm)	914(36″), 1000
Packaging	Paper or Plastic Can

■ Approval

Shielding gas	ABS	BV	DNV・GL	LR	KR	RS
Argon	2Y	4Y	IV YM	4Ym	4YSG(I)	4Y

■ Handling & Storage

• 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.
• 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%

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

