KX-706MU

FLUX CORED ARC WELDING
CONSUMABLE FOR WELDING OF 490MPa
HIGH TENSILE STEEL
(NON SLAG TYPE)

KISWEL

Rev.0

KX-706MU

KISWEL

■ Description & Application

- It is designed for welding of 490MPa high tensile steel with outstanding mechanical properties
- Typical applications include machineries, shipbuilding, offshore structures, bridges and general fabrications
- It has excellent low temperature toughness at -40℃
- Wire is a metal type of flux cored wire for flat and horizontal position welding
- It feature good penetration, high resistance to porosity, good wetting behavior as well as low hydrogen contents

■ Classification

- **AWS A5.18 : E70C-6M**
- **AWS A5.36 : E70T15-M21A4 CS1 H4**
- **EN ISO 17632 A : T46 4 M M21 3 H5**
- **EN ISO 17632 B : T49 4 T15-0M21A-U H5**

■ Typical Chemical Composition of Weld Metal(%)

Item	C	Si	Mn	P	S
AWS A5.18 E70C-6M	≤0.12	≤0.90	≤1.75	≤0.03	≤0.03
KX-706MU	**0.03**	**0.57**	**1.36**	**0.013**	**0.023**

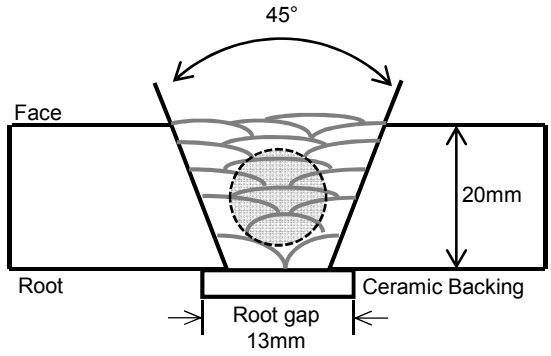
■ Shielding Gas

- **Ar + 15~25%CO_2 (15~25ℓ/min)**

■ Welding position



All Weld Metal Test Specimen



Base metal	A516-70
Diameter	1.2 mm
Welding position	1G
Welding current(A)	240
Arc voltage(V)	25
Heat input	14 kJ/cm

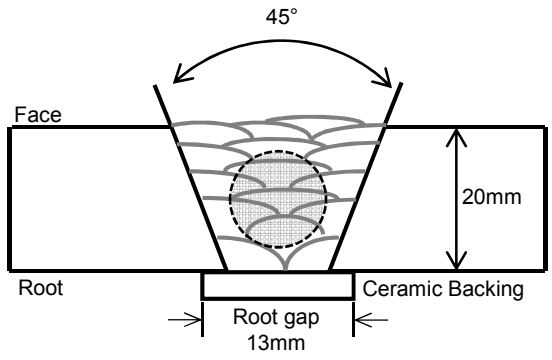
Typical Mechanical Properties of Weld Metal

	Y.S (MPa)	T.S (MPa)	El. (%)	IV (J) (Joule @ Temp)	Shielding Gas	PWHT
AWS E70C-6M	**min. 400**	**min. 480**	**min. 22**	**≥ 27 @ -30℃**		**AW**
KX-706MU (1G)	**546**	**621**	**26**	**74 @-40℃**	**Ar+20%CO_2**	**AW**

Typical Operating Procedures

Dia (mm)	Welding Conditions		Feed speed (m/min)	Deposition Efficiency(%)	Deposition Rate (Kg/Hr)
	Current (amps)	Voltage (volts)			
1.2	200	23	6.9	90-92	3.0
	250	26	11.5	93-95	4.5
	300	31	12.9	95-96	5.2
1.4	250	28	8.9	93-95	4.9
	300	31	10.2	95-96	6.1
	330	34	12.8	95-96	7.7
1.6	300	31	7.5	92-94	5.5
	350	33	8.1	93-95	6.1
	400	36	9.2	93-95	8.0

All Weld Metal Test Specimen (TUV Approval)



Base metal	DH-36
Diameter	1.2 mm
Welding position	1G
Welding current(A)	250
Arc voltage(V)	27
Heat input	12 kJ/cm

Typical Mechanical Properties of Weld Metal

	Y.S (MPa)	T.S (MPa)	El. (%)	IV (J) (Joule @ Temp)	Shielding Gas	PWHT
AWS E70C-6M	**min. 400**	**min. 480**	**min. 22**	**≥ 27 @ -30℃**		**AW**
KX-706MU (1G)	**557**	**634**	**25**	**60 @-40℃**	**Ar+20%CO_2**	**AW**
TUV approval	≥255 (450℃)					
Result	393					

Typical Operating Procedures

Dia (mm)	Welding Conditions		Feed speed (m/min)	Deposition Efficiency(%)	Deposition Rate (Kg/Hr)
	Current (amps)	Voltage (volts)			
1.2	200	23	6.9	90-92	3.0
	250	26	11.5	93-95	4.5
	300	31	12.9	95-96	5.2
1.4	250	28	8.9	93-95	4.9
	300	31	10.2	95-96	6.1
	330	34	12.8	95-96	7.7
1.6	300	31	7.5	92-94	5.5
	350	33	8.1	93-95	6.1
	400	36	9.2	93-95	8.0

■ Packaging





■ Size and Weight

Dia. (mm)	1.2,1.4,1.6
Weight (kg)	5, 12.5, 15, 20
Pail pack(kg)	100~350

■ Approval

TUV
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■ Handling and Storage

- **Once Flux cored wire picked up moisture, it cannot be dried at high temperature, unlike covered electrode.**
- **If a wire was left in a wire feeder in a high-temperature high- humidity atmosphere in summer season, a wet environment in rainy season or a dew fall environment at night in winter was unpacked, the wire should be kept in an area of low humidity.**

  ※ Temp. below 30℃ relative humidity below 60%

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

