KX-200

FLUX CORED ARC WELDING
CONSUMABLE FOR WELDING OF 490MPa
HIGH TENSILE STEEL

KISWEL

Rev.0

KX-200

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■ Description & Application

- **It is designed for welding of 490MPa high tensile steels**
- **Typical applications include machineries, shipbuilding, bridges and general fabrications**
- **Wire is a metal type of flux cored wire for flat and horizontal position welding**
- **It has good porosity resistance and is applicable for fillet welding of inorganic zinc-primer coated steels**

■ Classification

- **AWS A5.20 : E70T-1C**
- **AWS A5.36 : E70T1-C1A0 CS1 H8**
- **KS D 7104 YFW-C50DM**
- **JIS Z 3313 : T49J 0 T1-0CA-U H10**
- **EN ISO 17632 A : T42 0 R C1 3 H10**
- **EN ISO 17632 B : T49 0 T1-0CA-U H10**

■ Typical Chemical Composition of Weld Metal(%)

Item	C	Si	Mn	P	S
AWS A5.20 E70T-1C	≤0.12	≤0.90	≤1.75	≤0.03	≤0.03
KX-200	**0.04**	**0.45**	**1.30**	**0.012**	**0.012**

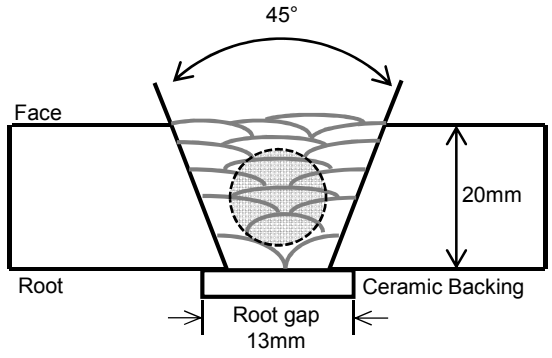
■ Shielding Gas

- **100% CO_2 (15~25ℓ/min)**

■ Welding position



All Weld Metal Test Specimen



Base metal	DH-36		
Diameter	1.4 mm		
Welding position	1G		
Welding current(A)	230	290	350
Arc voltage(V)	30	31	35
Heat input	12	15	18

Typical Mechanical Properties of Weld Metal

	Y.S (MPa)	T.S (MPa)	El. (%)	IV (J) (Joule @ Temp)	Shielding Gas	PWHT
AWS E70T-1C	<390	490-670	<22	≥ 27 @ -20℃		AW
KX-200 (12kJ/cm)	568	600	29	30-46 @-20℃	100%CO2	AW
KX-200 (15kJ/cm)	591	637	27	67-76@-20℃	100%CO2	AW
KX-200 (18kJ/cm)	601	640	25	71-79@-20℃	100%CO2	AW

Typical Operating Procedures

Dia (mm)	Welding Conditions		Feed speed (m/min)	Deposition Efficiency(%)	Melt-off Rate (Kg/Hr)
	Current (amps)	Voltage (volts)			
1.2	200	26	5.0	85-87	2.0
	250	30	6.3	87-89	2.9
	300	32	7.7	91-93	3.6
1.4	300	31	7.6	90-92	5.1
	350	35	10.2	91-93	5.8
	380	36	12.8	91-93	6.5
1.6	300	33	6.4	87-89	4.8
	350	35	8.7	90-91	5.4
	400	38	8.1	90-91	6.2
	450	42	9.2	91-92	7.8

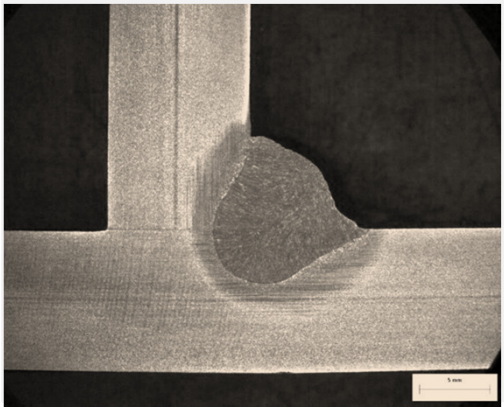
■ Bead Appearance (H-fillet)

Mode	Current (A)	Voltage (V)	Travel SP (CPM)	Base Metal	Thickness (mm)	Stick out (mm)	Shielding Gas
SCR	330	33	60	A Grade	12	25	100%CO2

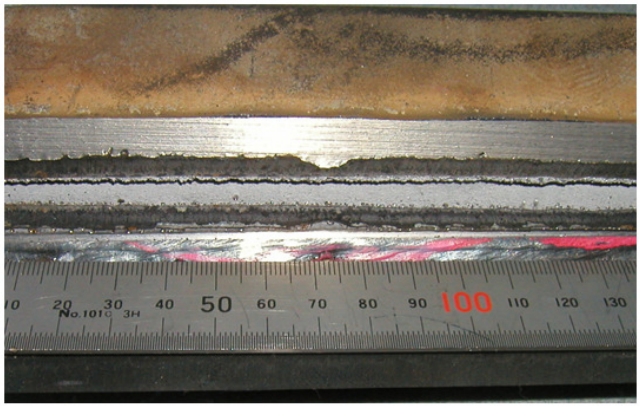
KX-200



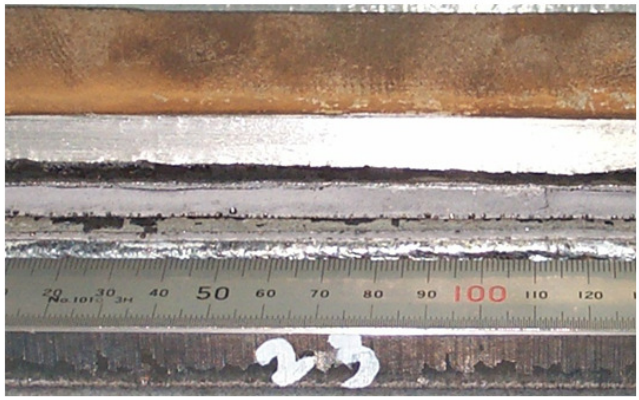
Actual weld thickness 5.0mm



■ Blowhole Test



Hole number : 8EA (Total 150mm)



Hole number : 4EA (Total150mm)

■ Diffusible Hydrogen Content (Gas chromatography method)

Class.	Diffusible Hydrogen Content (㎖) / 100g Weld Metal				
	1	2	3	4	Av.
Result	4.01	4.83	3.94	4.52	4.33

*** Test Information**

- ▶ **Test Method : Reference to EN ISO 3690**
- ▶ **Test Equipment : G.C (Gas Chromatograph)**

■ Packaging





■ Size and Weight

Dia. (mm)	1.2,1.4,1.6
Weight (kg)	5, 12.5, 15, 20
Pail pack(kg)	100~300

■ Approval

ABS	BV	DNV*GL	LR	KR	NK	CCS
2YSAH10	SA2Y40M	II Y40MS	2YS	3YSG	KSW53Y40G H5	3S,3YS

■ 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

