K-71T

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

KISWEL

Rev.0

K-71T

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Description & Application

- **It is designed for welding of 490MPa high tensile steel with outstanding mechanical properties**
- **Typical applications include machinery, shipbuilding, offshore structures, bridges and general fabrications**
- **Wire is a titania type of flux cored wire for all-positions welding**
- **It feature excellent mechanical properties, easy slag removal, low spatter generation, smooth bead shape, high X-ray safety**

Classification

- **AWS A5.20 : E71T-1C H8**
- **AWS A5.36 : E71T1-C1A0-CS1-H8**
- **KS D 7104 : YFW-C50DR**
- **JIS Z 3313 : T49J 0 T1-1 CA-U H10**
- **EN ISO 17632 A : T42 0 P C1 1 H10**
- **EN ISO 17632 B : T49 0 T1-1CA-U H10**

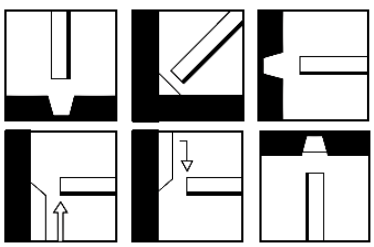
Typical Chemical Composition of Weld Metal(%)

Item	C	Si	Mn	P	S
AWS A5.20 E71T-1C H8	≤0.12	≤0.90	≤1.75	≤0.03	≤0.03
K-71T	**0.04**	**0.55**	**1.25**	**0.015**	**0.011**

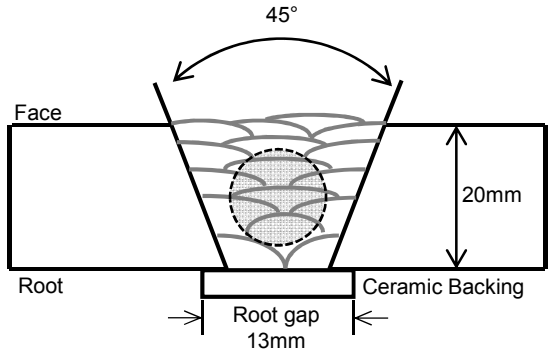
Shielding Gas

- **100% CO_2 (15~25ℓ/min)**

Welding position



All Weld Metal Test Specimen



Base metal	DH-36		
Diameter	1.4 mm		
Welding position	1G	2G	3G(up)
Welding current(A)	220	230	220
Arc voltage(V)	29	27	26
Heat input	15(1G), 10(2G), 30(3G) kJ/cm		

Typical Mechanical Properties of Weld Metal

	Y.S (MPa)	T.S (MPa)	El. (%)	IV (J) (Joule @ Temp)	Shielding Gas	PWHT
AWS E71T-1C	<390	490-670	<22	≥ 27 @ -20℃	100%CO2	AW
K-71T(1G)	**520.2**	**589.4**	**28.4**	**122-136 @-20℃**	**100%CO_2**	**AW**
K-71T(2G)	**558.3**	**608.0**	**27.3**	**106-135 @-20℃**	**100%CO_2**	**AW**
K-71T(3G)	**467.6**	**553.7**	**31.2**	**86-92 @-20℃**	**100%CO_2**	**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	10.2	84-87	3.4
	250	28	11.5	85-88	4.5
	300	33	15.3	86-88	5.2
1.4	250	28	7.6	85-87	3.9
	300	32	10.2	85-88	4.2
	330	36	12.8	86-89	8.5
1.6	280	31	6.4	85-88	4.2
	330	33	7.6	86-88	4.8
	350	34	8.1	87-89	5.3
	400	38	9.2	87-90	5.7

■ Diffusible Hydrogen Content (Gas chromatography method)

Class.	Diffusible Hydrogen Content (㎖) / 100g Weld Metal				
	1	2	3	4	Av.
Result	5.68	6.47	5.92	6.21	6.07

⋆ Test Information

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

■ Bead appearance

Class.	Vertical-up (3F)				
	180A*26V	200A*27V	220A*28V	240A*29V	260A*30V
K-71T					

■ 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
2YSA H10	SA2Y40M H10	II Y40MS(H10)	2YS H15	2YSG(C)H10	KSW52Y40G (C) H10

※ RINA, RS, CCS, CWB

■ 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

