



KUANG TAI

KFX-71T

Product Data Sheet

Flux Cored Wire for High Tensile Strength Steel

Specification

AWS A5.20 E71T-1C

Applications

- Capable of producing weld deposits with tensile strength exceeding 490 N/mm²
- Ideal for multi-pass welding in ship-building, tanks, bridges, steel structures and constructions.

Characteristics

- It provides: good mechanical properties, deep penetration, excellent workability, less fume, stable arc, good slag removal and excellent X-ray quality welds.

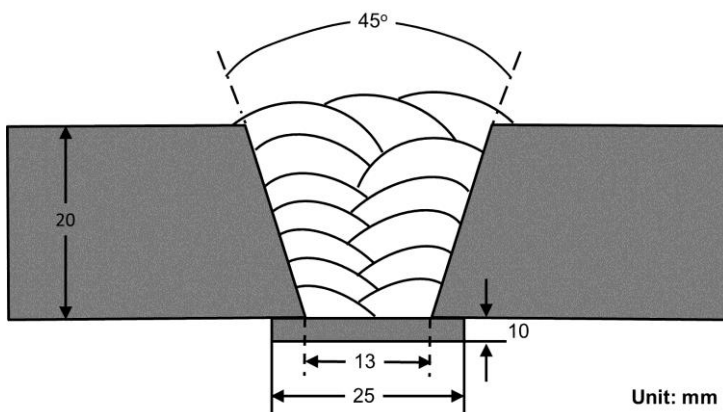
Note on Usage

- Use with 100% CO₂

Mechanical Properties & Chemical Composition of All Weld Metal

Welding Conditions

Method by AWS Rules



[Joint Preparation & Layer Details]

Diameter(mm)	1.2mm
Shielding Gas	100%CO ₂
Flow Rate (l/min)	20
Amp / Volt	280 / 34
Stick-Out (mm)	15-20
Interpass Temp (°C)	150±15
Polarity	DC(+)

● **Mechanical Properties of the Weld Metal**

Brand Name	Tensile Test Results			Charpy V-Notch Impact Value (Joules)		
	Y.S. (MPa)	T.S. (MPa)	EL. (%)	-20°C	-29°C	-40°C
KFX-71T	519	560	31	118	85	61
AWS A5.20 E71T-1C	390 min	490-670	22 min	27 min	-	-

● **Chemical Analysis of the Weld Metal**

Brand Name	Unit: wt%								
	C	Si	Mn	P	S	Ni	Cr	Mo	V
KFX-71T	0.053	0.59	1.43	0.020	0.005	0.036	0.04	0.008	0.01
AWS A5.20 E71T-1C	<0.12	<0.9	<1.75	<0.03	<0.03	<0.5	<0.2	<0.3	<0.08

Diffusible Hydrogen Content of Weld Metal

Unit: ml/100g weld metal

Specimen no.	1	2	3
	6.8	6.9	6.5

* Test method: carrier gas hot extraction with infrared furnace; conforms to EN/ISO 3690 and AWS A4.3.

Available Sizes and Suggested Operating Range

Welding Position	Wire Diameter		
	1.2mm	1.4mm	1.6mm
F&HF	120~300	150~350	180~400
Vertical Up	200~260	220~270	230~280

Typical Operating Procedures

Diameter Polarity CTWD mm(inch)	Wire Feed Speed in/min (cm/min)	Voltage Volts	Approx. Current (Amps)	Melt-Off Rate kg/hr	Deposition Rate kg/hr
1.2mm	175(445)	21-24	140	1.85	1.61
	225(572)	23-25	170	2.47	2.15
KFX-71T	275(699)	25-27	190	3.01	2.61
	325(826)	26-29	210	3.55	3.12
DC+	375(953)	27-29	240	4.18	3.66
	425(1080)	28-30	260	4.72	4.15
20 (3/4)	475(1207)	29-31	280	5.30	4.71
	600(1524)	31-33	320	6.68	6.00

Fillet Welding



1 pass



3 pass

Vertical Welding



Vertical-up



Vertical-down

This information is provided solely for the purpose of confirming product conformance with applicable standards. The serviceability of a product or structure utilizing this type of information is and must be the sole responsibility of the builder/user. Many variables beyond the control of Kuang Tai Metal IND CO., LTD. affect the results obtained in applying this type of information. These variables include, but are not limited to, welding procedure, shielding gas, plate chemistry and temperature, weldment design, fabrication methods and service requirements.