

Specification

AWS A5.20 E71T-1C/ E71T-1M

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

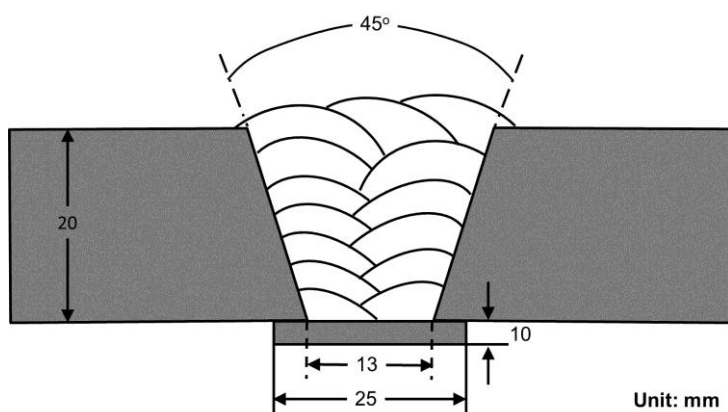
- It provides: good mechanical properties, deep penetration, excellent weld ability, less fume, stable arc, good slag removal and excellent X-ray quality welds.

Note on Usage

- Use with 100% CO₂ or Ar + 15~25% CO₂

Mechanical Properties & Chemical Composition of All Weld Metal

Welding Conditions



[Joint Preparation & Layer Details]

Method by AWS Rules

Diameter(mm)	0.045 inch
Shielding Gas	80% Ar+20%CO ₂
Flow Rate (l/min)	20
Amp / Volt	300 / 32
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℃	-29℃	-40℃
KFX-71M	559	601	29	135	106	81
AWS A5.20 E71T-1M	390 min	490-670	22 min	27 min	-	-

● Chemical Analysis of the Weld Metal

Unit: wt%

Brand Name	C	Si	Mn	P	S	Ni	Cr	Mo	V
KFX-71M	0.056	0.62	1.61	0.018	0.006	0.026	0.04	0.009	0.01
AWS A5.20 E71T-1M	<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
	6.3	6.4	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 (mm)		
	1.2mm	1.4mm	1.6mm
F&HF	120~320	150~370	180~420
Vertical Up	200~260	220~270	230~280

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.