KUANG TAI

KL-818B2

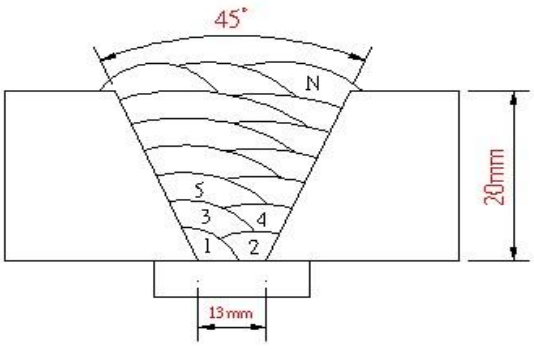
Product Data Sheet — **Stick Electrode for Low Alloy Steel**

Specification	AWS A5.5 E8018-B2
Applications	● Suitable for welding Cr-Mo alloy steel. ● Ideal for welding in high pressure steel pipes, heat exchanger steel pipes, rolled, cast and forged steel, such as ASTM A387Gr.11, JIS SCMV3.
Characteristics	● Weld metal contains 1.25%Cr-0.5%Mo. ● High deposition rate, smooth welding beads and X-ray quality welds.
Note on Usage	● Preheat Temperature: 160-190°C ● Interpass temperature: 160-190°C

Mechanical Properties & Chemical Composition of All Weld Metal

- **Welding procedure and joint design**

Welding Conditions



[Joint Preparation & Layer Details]

Method by AWS Rules

Diameter(mm)	4.0mm
Amp	180A
Interpass Temp (℃)	175±15
Polarity	DC(+)

Mechanical Properties of Weld Metal

Brand name	Tensile Test Results			Charpy V-Notch Impact Value (Joules)		
	Y.S. (MPa)	T.S. (MPa)	EL. (%)	-20℃	-40℃	-60℃
KL-818B2	596	675	23	-	-	-
AWS A5.5 E8018-B2	460 min	550 min.	19 min	-	-	-

*PWHT: 690℃ holding 1 hour.

Chemical Analysis of Weld Metal

Unit: wt%

Brand name	C	Si	Mn	P	S	Cr	Mo
KL-818B2	0.062	0.423	0.818	0.019	0.013	1.213	0.47
AWS A5.5 E8018-B2	0.05-0.12	≤0.8	≤0.9	≤0.03	≤0.03	1.00-1.50	0.40-0.65

Diffusible Hydrogen Content of Weld Metal

Unit: ml/100g weld metal

Specimen no.	1	2	3
	3.7	3.9	3.8

* 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	Diameter (mm) 3.2	4.0	5.0
F&HF	110~150	160~200	180~230
Vertical Up	90~130	130~170	140-~180