

# S-Shield K60

Low Alloy, All position

## Classifications

AWS A5.29: E81T8-Ni2 J H8  
 AWS A5.29M: E551T8-Ni2 J H8  
 ASME SFA-5.29 E81T8-Ni2 J-H8  
 GB/T 10045 T55 4 T8-1 NA-N5 H10

## Welding Position

All Position



## Type of Current

DCEN, DC-

## Key Features

- Fast-freezing slag that supports the molten metal during welding
- Designed to produce a nickel bearing weld deposit
- High impact strengths at low temperatures
- Handles poor fit-up
- Easy slag removal

## Applications

- Oil & gas pipeline
- Storage tanks
- Structural applications
- Bridges
- Heavy wall tubular constructions

## Typical Mechanical Properties all weld metal

	Yield Strength MPa (ksi)	Tensile Strength MPa (ksi)	Elongation %	Charpy V-Notch Impact J (ft-lbf) @-40°C (-40°F)
AWS A5.29 E81T8-Ni2 J Spec.	470 (68) min.	550-690 (80-100)	19 min.	27 (20) min.
Typical Test Results - As weld	540 (78)	610 (88)	26	139 (102)

## Typical all weld metal composition, %

	C	Mn	Si	P	S	Ni	AL
AWS A5.29 E81T8-Ni2 J Spec.	0.12 max.	1.5 max.	0.8 max.	0.03 max.	0.03 max.	1.75-2.75	1.8 max.
Typical Test Results	0.04	1.35	0.059	0.007	0.003	2.2	0.92

## Typical Diffusible Hydrogen

Testing Method	AWS Specification	S-Shield K60
Gas Chromatography	8.0 ml/100g max.	6.1 ml/100g

## Diameter and Package

Diameter mm(in)	25.4 kg (56 lb)/Bucket - 6.35 kg(14 lb)/Coil
2 (5/64)	2FSD20S6401

## Typical Welding Parameters

Diameter mm (in)	Wire Feed Speed m/min (in/min)	Welding Current A	Arc Voltage V	Deposition Rate kg/hr (lb/hr)	CTWD mm (in)
2.0 (5/64)	1.8 (70)	190	17.5-18.5	1.5 (3.3)	25 (1)
2.0 (5/64)	2.3 (90)	245	18-20	2.1 (4.3)	25 (1)
2.0 (5/64)	2.8 (110)	270	20-21	2.4 (5.3)	25 (1)
2.0 (5/64)	3.0 (120)	295	21-22	2.7 (5.8)	25 (1)



Focus on welding  
 Top Technology

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