

# ESAB 7018-1 Prime



ESAB 7018-1 Prime is a reliable, high-quality electrode, providing high deposition rate and extra low moisture absorption. It provides excellent welding pool control, minimal spatter level, good arc strike and easy slag removal making it easy to weld with, including in out-of-position welding. Particularly suitable for welding high strength low-alloy steels. The low-temperature impact strength of the weld metal should be noted.

<b>Classifications:</b>	SFA/AWS A5.1: E7018-1H4 R, SFA/AWS A5.1: E7018H4 R, CSA W48: E4918-1-H4, EN ISO 2560-A: E 46 5 B 32 H5
<b>Approvals:</b>	ABS 3Y H5, BV 3Y H5, CWB E4918-1-H4, DNV-GL 3Y H5

Approvals are based on factory location. Please contact ESAB for more information.

<b>Welding Current:</b>	AC, DC+
<b>Diffusible Hydrogen:</b>	< 4.0 ml/100g
<b>Alloy Type:</b>	Carbon Manganese
<b>Coating Type:</b>	Basic covering

## Typical Tensile Properties

Condition	Yield Strength	Tensile Strength	Elongation
As Welded	500 MPa (72.5 ksi)	590 MPa (85.6 ksi)	28 %

## Typical Charpy V-Notch Properties

Condition	Testing Temperature	Impact Value
As Welded	-45 °C (-49 °F)	105 J (77.4 ft-lb)
As Welded	-50 °C (-58 °F)	100 J (73.7 ft-lb)

## Deposition Data

Diameter	Current	Voltage	kg weld metal/ kg electrodes	Number of electrodes/kg weld metal	Fusion time per electrode at 90% I max	Deposition rate 90% I max
2.4 x 350 mm (3/32 x 14 in.)	80-110 A	22.6 V	0.64	66	63.5 sec	0.86 kg/h (1.90 lb/h)
3.2 x 350 mm (1/8 x 14 in.)	110-140 A	22.6 V	0.62	41	72 sec	1.22 kg/h (2.69 lb/h)
4.0 x 350 mm (5/32 x 14 in.)	140-200 A	23.2 V	0.62	28	72.5 sec	1.77 kg/h (3.90 lb/h)