AWS A5.1 E7018-1
EN ISO 2560-B-E4918-1A

HOBART 18-1

Characteristics and Applications:

HOBART 18-1 is an iron powder type of low hydrogen electrode for all-position welding of 490N/mm^2 grade high tensile steel. It performs with higher deposition rate, good X-ray soundness, good mechanical properties and beautiful bead appearance. With excellent notch toughness at the temperature of -40℃ to -50℃, it is very suitable for low alloy steels, medium carbon steels, heavy steel plates, cast steels and especially for welding of Aluminum Killed steel of LPG.

Notes on Usage:

1. Dry the electrodes at 300-350℃ for 60 minutes and then keep at 100-150℃ before using.
2. Use back-step method and hold for 3-5 seconds at every end-up to prevent arc starting from blowholes.
3. Maintaining short arc length as possible is highly recommended. While welding with weave method, moving range should be controlled within 3 times of the wire's dia.
4. Clean up the contaminations on the base metal.

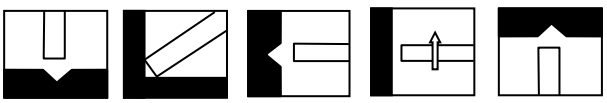
Typical Chemical Composition of Weld Metal (wt%)

	C	Mn	Si	P	S	Ni	Cr	Mo	V
AWS	≦0.15	≦1.60	≦0.75	≦0.035	≦0.035	≦0.30	≦0.20	≦0.30	≦0.08
EN ISO	≦0.15	≦1.60	≦0.75	≦0.035	≦0.035	≦0.30	≦0.20	≦0.30	≦0.08
Typical value	0.08	1.30	0.50	0.02	0.008	0.009	0.02	0.002	0.014

Typical Mechanical Properties of Weld Metal

	Yield Strength MPa(ksi)	Tensile Strength MPa(ksi)	Elongation %	Charpy V-Notch J (ft-lbf) -45°C (-50°F)
AWS	≧400(58)	≧490(70)	≧22	≧27(20)
EN ISO	≧400(58)	≧490(70)	≧20	≧27(20)
Typical value	500(73)	580(84)	30	100(77)

Welding Position:



Sizes and Recommended Operating Range (AC or DC＜+＞)

Diameter (mm)		2.6	3.2	4.0	5.0
Length (mm)		350	350	450	450
Current (Amps)	F	55-85	90-130	130-180	170-240
	V&OH	50-80	80-120	110-160	150-180

HOBART FILLER METALS