

Characteristics and Applications:

HOBART 12J is a gas-shielded flux cored wire designed for mild steel and 490N/mm² high tensile steel. It is suitable for all position welding. Its features include stable arc, less spatter, easy slag removal, excellent X-Ray inspection, low diffusible hydrogen (less than 5 ml/100g) and good low temperature impact value due to 0.4%Ni in weld metal. The typical applications are shipbuilding, offshore, storage tank, pressure vessels, piping etc.

Notes on Usage:

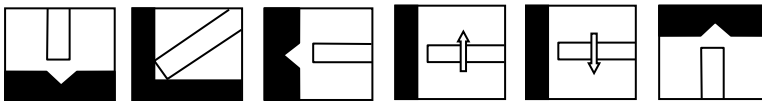
1. Use DC(+) polarity.
2. Use CO₂ as shielding gas.
3. Maintain interpass temperature under 150°C in multi-pass welding to keep excellent mechanical properties.
4. Keep dry while in storage and delivery.

Typical Chemical Composition of Weld Metal (wt%)

	C	Mn	Si	P	S	Ni
AWS	≤ 0.12	≤ 1.60	≤ 0.90	≤ 0.03	≤ 0.03	≤ 0.50
EN ISO	-	≤ 2.0	-	-	-	≤ 0.5
Typical value	0.04	1.13	0.23	0.015	0.005	0.41

Typical Mechanical Properties of Weld Metal

	Yield strength MPa(ksi)	Tensile strength MPa(ksi)	Elongation %	Charpy V-Notch J (ft-lbf)		PWHT
AWS	≥ 390(58)	490-620(70-90)	≥ 22	-40°C(-40°F)	≥ 27(20)	-
EN ISO	≥ 420(61)	500-640(73-93)	≥ 20	-40°C(-40°F)	≥ 47(35)	-
Typical value	529(77)	574(83)	30	-40°C(-40°F)	169(125)	-
	490(71)	550(80)	32	-46°C(-50°F)	116(86)	610°C×13hrs

Welding Position**Sizes and Recommended Operating Range (DC < + >):**

Stick Out : 15-25 (mm), Flow Rate : 20-25 (l/min)

Position \ Diameter (mm)	1.2
F, HF	160A~280A / 24V~33V
VU, OH	150A~220A / 24V~28V
VD	230A~280A / 28V~33V
H	200A~260A / 26V~30V

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