

Classification

AWS A 5.1 : E6013
JIS Z 3211 : E4313

Applications

Welding of mild steel sheets, pipes and light gauges for drums and structures.

Characteristics

YAWATA S-13 is a high rutile type electrode for all positions welding except vertical downward. Special characteristics are soft arc, less spatter, good for tack welding, self-lifting slag, shiny and beautiful beads. There is no fear of burning through.

Typical Chemical Composition of Deposited Metal (%)

C	Si	Mn	P	S
0.07	0.31	0.35	0.019	0.013

Typical Mechanical Properties of Deposited Metal

Tensile Strength N/mm ² (kgf/mm ²)	Yield Strength N/mm ² (kgf/mm ²)	Elongation %	Charpy 2V-notch at 0°C, J (kgf.m)
500 (51)	450 (46)	28	65 (7.0)

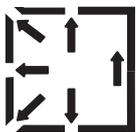
Sizes & Recommended Current Range (AC or DC ±)

Diameter/Length (mm)	2.6/350	3.2/350	4.0/400	5.0/400
Welding Position	Current (A)			
F	45~110	60~130	120~200	160~250
V, OH	60~100	70~120	120~180	150~210

Guideline in Usage

1. Use dry electrodes only.
2. If coating flux absorbs excessive moisture, arc and slag fluidity become unstable, spatters increase, undercuts and blowholes are apt to occur. Damp electrodes should be redried at 70-120°C for 60 minutes.

Welding Positions



All positions, except vertical down