



YAWATA 7024 For 490 N/mm² High Tensile Strength Steel

Classification

AWS A 5.1 : E7024
DIN 1913 : E51 32 RR 11 160

Approvals

BV, LR

Applications

All downhand welding work when high welding speed is sought: fillet welds or lap joints, for its higher deposition rate, the welding of high efficiency is attained when it is used in combination with a gravity welder or small angle welding apparatus. This electrode is particularly recommended for welding of sheet steels, naval and railroad construction, pipes boiler making, machine welding, etc.

Characteristics

YAWATA 7024 is a rutile iron powder electrode combining a recovery of approximately 160% with fast burn off to give very good deposition rates. Other characteristics include self-lifting slag, smooth arc, with very little nonadherent spatters, instantaneous striking and re-striking, smooth bead appearance with fine neat ripples.

Typical Chemical Composition of Deposited Metal (%)

C	Si	Mn	P	S
≤0.12	0.25~0.50	0.50~0.90	≤0.030	≤0.030

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)
480~550 (49~56)	430~500 (44~51)	≥22	≥55 (≥5.6)

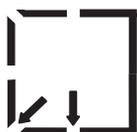
Sizes & Recommended Current Range (AC or DC -)

Diameter/ Length (mm)	3.2/350	4.0/400	5.0/450,700
Welding Position	Current (A)		
F, H-Fil	120~180	180~220	200~270

Guideline in Usage

1. Use dry electrodes only. Damp electrodes should be re-dried at 70~120°C for 60 minutes before use.
2. If coating flux absorbs excessive moisture, arc and slag fluidity become unstable, spatters increase, undercuts and blowholes are apt to occur.
3. Optimum bead length/burned up electrode length ratio is 0.8~1.8 for manual welding and 1.0~1.8 for gravity welding.

Welding Positions



Flat butt and fillet welds only