THJ422 (E4303)

CARBON STEEL WELDING ELECTRODE

ISO 2560-B-E4303 A
GB/T 5117 E4303

APPLICATION

Welding 430 MPa class low-carbon steel structures and lower-strength low-alloy steel structures, including Q235 and 09Mn2.

CHARACTERISTICS

THJ422 is a titania-type electrode for AC or DC welding in all positions. It offers good welding operability, a stable arc, low spatter, easy slag removal, a smooth weld bead, and good arc re-ignition.

PRECAUTIONS

Re-drying is generally unnecessary. If affected by moisture, re-dry at 150 °C for 0.5-1 hour before use.

WELDING POSITIONS



MECHANICAL PROPERTIES

Items	Tensile strength (MPa)	Yield strength (MPa)	Elongation (%)	Impact energy at 0 °C (J)
Requirements	430-560	≥330	≥22	≥47
Typical results	480	420	28	80
Items	**Impact energy at -20 °C (J)**			
Requirements	≥47			
Typical results	70			

DEPOSITED WELD METAL CHEMICAL COMPOSITION (%)

Items	C	Mn	Si	S	P	Ni	Cr	Mo	V
Requirements	≤0.10	0.27-0.55	≤0.25	≤0.030	≤0.035	≤0.30	≤0.20	≤0.30	≤0.08
Typical results	0.08	0.37	0.14	0.018	0.022	0.030	0.035	0.005	0.004

TYPICAL OPERATING PROCEDURES

AC / DC

Diameter × length (mm)	2.0 × 300	2.5 × 300/350	3.2 × 350	4.0 × 400	5.0 × 400	5.8 × 400
Current (A)	40-70	60-90	90-140	160-210	220-270	260-310

X-ray radiographic inspection: Level II

CERTIFICATION

ABS 3 · BV 3 · CCS 3 · DNV 3 · LR 3m · NK KMW3 · KR 3 · RINA 3

BRIDGE WELDING MATERIALS