THQ-60C (ER90S-G)

LOW-ALLOY STEEL MIG WELDING WIRE

Equivalent to AWS A5.28 ER90S-G
ISO 18634-B-G 59A 4M21G
GB/T 39281 G59A 4 M21 ZCT

APPLICATION

Welding 600 MPa class high-strength steel structures in coal-mining machinery, bridges, buildings, and vehicle manufacturing.

CHARACTERISTICS

THQ-60C is a solid gas-shielded welding wire for M21 shielding gas. It offers good all-position welding performance and good low-temperature impact toughness of the deposited weld metal.

PRECAUTIONS

The listed welding parameters are reference values. Establish a welding procedure suitable for the actual production conditions. Follow the general operating instructions for gas-shielded solid wires.

WELDING POSITIONS



MECHANICAL PROPERTIES

Items	Tensile strength (MPa)	Yield strength (MPa)	Elongation (%)	Impact energy at -40 °C (J)
Requirements	590-790	≥490	≥19	≥47
Typical results	640	550	24	82

Test shielding gas: 80% Ar + 20% CO_2

WIRE CHEMICAL COMPOSITION (%)

Items	C	Mn	Si	S	P	Cr	Cu
Typical results	0.08	1.58	0.65	0.007	0.010	0.30	0.09

TYPICAL OPERATING PROCEDURES

DCEP

Diameter (mm)	0.8	1.0	1.2	1.6
Current (A)	50-180	70-230	80-350	120-500

X-ray radiographic inspection: Level II

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