



DESCRIPTION

Basic coated electrode for 3,5% Ni steels

Electrode designed for welding low-alloy steels with 3.5% Ni. Suitable for the construction of cryogenic plant and pipework in petrochemical industry and for general low temperature applications down to -80°C. The weld pool and slag are easy to control and facilitate the achievement of a clean bead surface even in narrow preparations and in root pass. Ease of slag removal reduces post-welding cleaning operations to a minimum.

SPECIFICATIONS

EN ISO 2560-A	E 50 6 3Ni B 42	AWS A5.5	E8018-C2
Shielding	-	Positions	PA, PB, PC, PD, PE, PF
Current	DC+, AC	Packaging Type	Carton box

ASME QUALIFICATIONS

F-No (QW432)	6
A-No (QW442)	10

CHEM. COMP. %	DEFAULT	MECHANICAL PROPERTIES	MIN. PER STANDARD	PRODUCT
C	0.08	Tensile strength R _m MPa	550	680
Mn	1.1	Yield strength R _{p0.2} MPa	500	600
Ni	3.2	Elongation A (L ₀ =5d ₀) %	19	20
P	0.01	Impact Charpy ISO-V	27J @ -75°C	40J @ -75°C
S	0.01	Impact Charpy ISO-V	-	-
Mo	0.02			
Si	0.7			
Cu	0.1			

WELDING PARAMETERS	2.5 mm	3.2 mm	4.0 mm	5.0 mm
Ampere	65A - 95A	100A - 140A	130A - 190A	180A - 240A
Voltage	-	-	-	-
Packaging	45 pcs/kg	21 pcs/kg	14 pcs/kg	10 pcs/kg
Packaging Type	Carton box	Carton box	Carton box	Carton box

NOTES

Pcs/kg is indicative, actual number may vary ± 5%.



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3Ni

DESCRIPTION

CRYOGENIC STEELS

3Ni

APPLICATION

These consumables are specifically designed for the welding of low-alloy steels containing 3.5% Ni. They are ideal for the construction of cryogenic plants, pipelines in the petrochemical industry, and for general applications requiring reliable performance at low temperatures, down to -80 °C. It is important to preheat according to the base material and the thickness of the piece to be welded. Although AWS (American Welding Society) specifications often require post-weld heat treatment (PWHT), many welds can be left in the "as-welded" state. The necessity for PWHT is generally determined by the relevant and applicable design codes.

ALLOY TYPE

Nominally 3.5% Ni low alloy steels.

MICROSTRUCTURE

In the as-welded condition the microstructure is ferritic with a component of acicular ferrite for optimum toughness.

MATERIALS

Low temperature applications, fine-grained steels that contain up to 3.5% Nickel.

ASTM: A203 gr. D, E, F, A350 gr. LF3, A352 gr. LC3, A333 Gr. 3

UNS: K22103, K21703, J42015

