



DESCRIPTION

Basic flux cored wire for flat and horizontal position

Basic flux cored wire for welding low-alloy steels with 1% Ni and fine grain steel as well as for -60°C low temperature applications. Suitable for the construction of offshore platforms, pressure vessels and pipelines and also for welding higher strength steel structures where PWHT is impracticable but toughness and crack resistance are required. The wire shows excellent weldability in flat and horizontal position, smooth and bright bead, very low spatter losses, easy to remove slag and exceptional mechanical properties even at low temperatures.

SPECIFICATIONS

EN ISO 17632-A	T 46 10 3Ni B M 3 H5	AWS A5.29	E80T5 G H4
Shielding	M21	Positions	PA, PB, PC
Current	DC+	Packaging Type	BS300 spool

ASME QUALIFICATIONS

F-No (QW432)	5
A-No (QW442)	10

CHEM. COMP. %	DEFAULT	MECHANICAL PROPERTIES	PRODUCT
C	0.1	Tensile strength R _m MPa	560
Mn	1	Yield strength R _{p0.2} MPa	480
Ni	3.5	Elongation A (L ₀ =5d ₀) %	30
P	0.01	Impact Charpy ISO-V	100J @ -100°C
S	0.01		
Mo	0.03		
Si	0.6		
Cu	0.12		
		WELDING PARAMETERS	
			1.2 mm 1.6 mm
		Ampere	100A - 300A 160A - 420A
		Voltage	16V - 28V 31V - 35V
		Packaging	Ø 1,2÷1,6mm Ø 1,2÷1,6mm
		Packaging Type	BS300 spool BS300 spool



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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

