



DESCRIPTION

Low-alloy rod for steels with high yield strength

Solid rod with a copper coating, low-alloyed with ni-cr-mo additions, designed for welding high yield strength steels with tensile strength greater than 700 MPa. Good impact resilience at low temperatures. Suitable for the metallurgical industry, offshore manufacturing, chemical, and petrochemical industries. Also applicable in the fabrication of high-strength low-alloy steels, which can be used for constructing industrial machinery, cranes, and other highly stressed structural components.

SPECIFICATIONS

EN ISO 16834-A	W 62 4 Mn3NiCrMo	AWS A5.28	ER100S-G
Shielding	I1	Positions	PA, PB, PC, PD, PE, PF
Current	DC-	Packaging Type	5kg carton tube

ASME QUALIFICATIONS

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

CHEM. COMP. %	DEFAULT	MECHANICAL PROPERTIES	MIN. PER STANDARD	PRODUCT
C	0.09	Tensile strength R _m MPa	700	720
Mn	1.5	Yield strength R _{p0.2} MPa	620	620
Ni	0.55	Elongation A (L ₀ =5d ₀) %	-	20
Cr	0.4	Impact Charpy ISO-V	47J @ -40°C	50J @ -40°C
P	0.01	Impact Charpy ISO-V	-	-
S	0.007			
Mo	0.22			
Si	0.7			
Cu	0.14			
		WELDING PARAMETERS	1.6 mm	2.4 mm
		Ampere	95A - 135A	145A - 205A
		Voltage	-	-
		Packaging	Ø 1,2÷3,2mm	Ø 1,2÷3,2mm
		Packaging Type	5kg carton tube	5kg carton tube



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100ksi

DESCRIPTION

HIGH YIELD STRENGTH STEELS

100ksi

APPLICATION

These consumables are designed to ensure excellent impact resistance even at low temperatures, making them ideal for use in constructions with high-strength low-alloy (HSLA) steels, such as cranes, earth-moving equipment, and the like. They are also particularly suitable for offshore fabrications and components in the chemical and petrochemical industries. Preheating based on the base material and thickness is crucial, considering that higher strength materials often require a minimum preheat of 100 °C. For some HSLA steels, it's advisable to avoid interpass temperatures above 200 °C, as they may compromise the weld joint's strength and toughness. Post-weld heat treatment (PWHT) is closely related to the base material and the specific application.

ALLOY TYPE

Mn-Ni-Mo low alloy consumables for welding high strength steels with ultimate tensile strength to 690 MPa (100ksi).

MICROSTRUCTURE

Predominantly ferrite; some will contain high proportions of acicular ferrite for optimum as welded toughness.

MATERIALS

For joining of quenched and tempered and thermomechanically rolled fine-grained structural steels. For use in building, crane and vehicle constructions.

EN W.Nr.: S460, S500, S550, S620, S620Q, S620QL, S620QL1, S690Q, S690QL, S690QL1, S600MC, S650MC, S700MC, L690M, L830M

ASTM: A 514 Gr. F, H, Q, A 709 Gr. 100 Type B, E, F, H, Q, A 709 Gr. HPS 100W

API: 5L X65, 5L X70, 5L X80+

PROPRIETARY: N-A-XTRA® M 700 (ThyssenKrupp), Strenx® 700 (SSAB)

