



# DAIKOMCW 115



HIGH YIELD STRENGTH STEELS  
110ksi

## DESCRIPTION

### Metal all position flux cored wire

Virtually spatter free in the spray-arc range and particularly suitable for robotic applications, this Ni-Cr-Mo low alloy metal core wire is formulated for welding high yield strength steels, with tensile strength higher than 770 MPa. Excellent resilience values at low temperatures, down to -60°C. Suitable for carpentry, off-shore constructions, chemical and petroleum industries. It can be used in the construction of industrial machines, cranes, and other components that require high mechanical strength.

## SPECIFICATIONS

EN ISO 18276-A	69 6 Mn2NiCrMo M M21 H5	AWS A5.28	E110C-K4H4
Shielding	M21	Positions	PA, PB, PC, PD, PE, PF, PG
Current	DC+	Packaging Type	B5300 spool

## ASME QUALIFICATIONS

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

## CHEM. COMP. %

C	0.07
Mn	1.4
Ni	2.2
Cr	0.35
P	0.02
S	0.02
Mo	0.4
Si	0.4
Cu	0.15

## MECHANICAL PROPERTIES

	MIN. PER STANDARD	PRODUCT
Tensile strength $R_m$ MPa	760	900
Yield strength $R_{p0.2}$ MPa	690	690
Elongation A ( $L_0=5d_0$ ) %	17	17
Impact Charpy ISO-V	47J @ -60°C	47J @ -60°C
Impact Charpy ISO-V	-	-

## WELDING PARAMETERS

	1.2 mm	1.6 mm
Ampere	160A - 280A	180A - 350A
Voltage	18V - 30V	30V - 34V
Packaging	Ø 1,2÷1,6mm	Ø 1,2÷1,6mm
Packaging Type	B5300 spool	B5300 spool



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# 110ksi

DESCRIPTION

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## APPLICATION

Ideal for joining high-strength thermomechanically refined and quenched and tempered fine-grain structural steels and tubes. The deposited metal provides excellent strength even at low temperatures when used with gas mixes. It has good deformability, making it particularly suitable for use in crane construction, buildings, and vehicles. It is critical to preheat according to base material and thickness; materials that could be welded with higher-strength consumables normally require a minimum preheat of 100 °C. For some HSLA steels, exceeding interpass temperatures of 200 °C can compromise strength and toughness. The post-weld heat treatment (PWHT) varies depending on the base material and the specified application.

## ALLOY TYPE

Mn-Ni-Mo low alloy consumables for welding high strength steels with ultimate tensile strength up to 750 MPa (110 ksi).

## MICROSTRUCTURE

The microstructure of all the consumables is 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.:** S690QL1, L555M, S690Q, S690QL, S690QL1, S650MC, S700MC

**ASTM:** A 514 Gr. F, H, Q

**API:** 5L X80, 5L X90, 5L X100

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

