



DAIKOFCW 66R



CARBON STEELS

WEATHERING STEEL-Cor-Ten®

DESCRIPTION

Rutile all position flux cored wire for welding weathering steels

Flux cored wire with Ni-Cu-Cr additions mainly used for weathering steels. Applications include architectural structures, bridges and exhaust gas flues. It offers excellent weldability, easy handling and slag control in all positions resulting in high productivity with outstanding welding performance. Self-releasing slag requiring less cleaning and pickling, very low spatter formation and increased travel speeds allow to obtain noticeable savings in time and costs.

SPECIFICATIONS

EN ISO 17632-A	T 50 2 ZCuNiCr P M211 H10	AWS A5.29	E81T1-W2M
Shielding	M21	Positions	PA, PB, PC, PD, PE, PF, PG
Current	DC+	Packaging Type	B5300, D200 spools

ASME QUALIFICATIONS

F-No (QW432)	6
A-No (QW442)	1

CHEM. COMP. %

C	0.05
Mn	1.2
Ni	0.6
Cr	0.5
P	0.010
S	0.010
Si	0.5
Cu	0.4

MECHANICAL PROPERTIES

	MIN. PER STANDARD	PRODUCT
Tensile strength R_m MPa	550	650
Yield strength $R_{p0.2}$ MPa	500	550
Elongation A ($L_0=5d_0$) %	17	23
Impact Charpy ISO-V	47J	140J @ -20°C
Impact Charpy ISO-V	-	-

WELDING PARAMETERS

	1.2 mm	1.6 mm
Ampere	130A - 290A	170A - 400A
Voltage	18V - 30V	28V - 32V
Packaging	Ø 1,0÷1,6mm	Ø 1,0÷1,6mm
Packaging Type	B5300, D200 spools	B5300, D200 spools



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DESCRIPTION

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APPLICATION

This type of steel is primarily used for constructing structures with weather-resistant steels, thanks to precise control of copper addition. This ensures corrosion resistance three times higher and a more stable patina compared to traditional carbon-manganese (C-Mn) steel. Its applications include architectural structures, bridges, drainpipes, and chimneys. It is particularly effective against corrosion in seawater, especially in harsh arctic waters with high oxygenation and salinity. It is often used in the welding of microalloyed and C-Mn steels for icebreaker ships and offshore structures. It is essential to preheat based on the thickness of the joint and its restraint. Typically, the material is left in the 'as-welded' condition, without further treatments.

ALLOY TYPE

Low alloy steel with Ni-Cu-Cr additions for welding weathering steels.

MICROSTRUCTURE

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

MATERIALS

EN W.Nr.: S235JRW (1.8960), S235J2W (1.8961), S235J0W (1.8958), S275J0W, S275J2W, S355J0W (1.8959), S355J2W (1.8963), S355J0WP (1.8945)

ASTM: A588 gr. A, B, C, K, A242 gr. 1, 2

PROPRIETARY: Cor-Ten® A, B (US Steel), Patinax® (Thyssenkrupp)

