FCW 81-M

Metal Cored Wire
For cold tough steel

Classification

AWS A5.36 : E80T15-M21A8-Ni1-H4 ISO 17632-A T 50 6 1Ni M M 1 H5

Description & Applications

Metal cored wire, Nickel alloyed, for welding of carbon, carbon-manganese and high strength steels with Ar + CO2 shielding gas.Resistant to low temperature down to -60°C. Good characteristics of cold toughness up to -60°C. Good weldability, very low spatter losses and excellent weld bead appearance. Easy slag removal.

Main applications: General steel constructions, foundries, shipyards

Base materials

Fine grain construction steels, cold tough:

EN	:	S355JR, S355J0, S355J2, S450J0, S355N-S460N, S355NL-S460NL, S355M-S460M, S355ML-S460ML, S460Q, S500Q, S460QL, S500QL, S460QL1, S500QL1, P355GH, P355NH, P420NH, P460NH, P355N-P460N, P355NH-P460NH, P355NL1-P460NL1, P355NL2-P460NL2, L245NB-L415NB, L245MB-L485MB, L360QB-L485QB, aldur 500Q, aldur500QL, aldur 500QL1
ASTM	:	A 350 Gr. LF2; A 516 Gr. 65, 70; A 572 Gr. 42, 50, 60, 65; A 573 Gr. 70; A 588 Gr. B, C, K; A 633 Gr. A, C, D, E; A 662 Gr. B, C; A 678 Gr. B; A 707 Gr. L2, L3; A 841 Gr. A, B, C; API 5 L X42, X52, X60, X65, X70, X52Q, X60Q, X65Q, X70Q

Typical Chemical Composition (%)

C	Si	Mn	Cr	Ni	Mo	Cu	V	P	S	Fe
0.06	0.50	1.3	0.02	0.90	0.01	0.12	0.02	0.015	0.010	Rem.

Typical All Weld Metal Mechanical Properties

R_e (MPa)	R_m (MPa)	A_5 (%)	KV (J)	
530	620	27	-60°C	90

Welding Current & Instructions

Welding mode	Wire Ø (mm)	Welding parameters			Shielding Gas
		Current (A)	Voltage (V)	Stick-out (mm)	
= +	1.0 1.2 1.4 1.6	160 - 270 190 - 320 200 - 350 210 - 380	21 - 34 22 - 35 23 - 36 23 - 37	10 - 25	ISO 14175 : M21 (Ar/CO_2) 12-15 l/min

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