FCW 77-M

Metal cored wire
For high strength steels

Classification

AWS A5.28 : E110C-K4-H4 ISO 18276-A : T 69 4 Mn2NiCrMo M M21 1 H5

Description & Applications

Metal cored wire, Nickel, Chromium and Molybdenum alloyed for welding low alloyed and high strength steels with Ar + CO_2 shielding gas. Exceptional mechanical properties at low temperatures (-60°C). Good weldability, excellent bead appearance, low spatter losses.

Main applications: Cranes, vessel and apparatus construction

Base material:

High strength steels

EN- Designation	S550Q-S690Q, S550QL-S690QL, P550Q-P690Q, P550QL-P690QL alform 550 M-700 M
ASTM	A 514 Gr. F, H, Q ; A 709 Gr. 100 Type B, E, F, H, Q ; A 709 Gr. HPS 100W

Typical Chemical Composition (%)

	C	Si	Mn	Cr	Ni	Mo	Cu	Nb	V	P	S
Min	0.03		1.40	0.30	1.80	0.30					
Max	0.10	0.80	2.00	0.60	2.50	0.60	0.3	0.05	0.03	0.020	0.020
Type	0.06	0.60	1.60	0.50	2.40	0.50	0.09	0.01	0.005	0.015	0.015

Typical All Weld Metal Mechanical Properties

	R_e (MPa)	R_m (MPa)	A_5 (%)	KV (J)	
Min	690	770	17	-40°C -50°C	47 27
Max		940			
Type	760	820	18	-40°C -50°C	65 40

Welding Current & Instructions

Welding mode	Wire Ø (mm)	Welding parameters			Shielding Gas
		Current (A)	Voltage (V)	Stick-out (mm)	
FCAW = +	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