



FCW 77-R

*Rutile flux cored wire, all positions
For high strength steels*

Classification

AWS A5.36 : E111T1-M21A8-GH4 ISO 18276-A T 69 6 Z P M 1 H5

Description & Applications

Rutile flux cored wire alloyed with Nickel and molybdenum for high strength steels with Ar + CO₂ 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	S690Q, S690QL, S690QL1, 700 M, aldur 700 Q, 700 QL, 700 QL1
ASTM	A 517 Gr A – P ; A 572 Gr 65

Typical Chemical Composition (%)

C	Si	Mn	Cr	Ni	Mo	Cu	V	P	S	Fe
0.07	0.40	1.70	0.20	2.00	0.15	0.08	0.005	0.015	0.015	Rem.

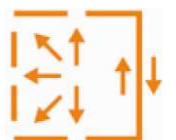
Typical All Weld Metal Mechanical Properties

R _e (MPa)	R _m (MPa)	A ₅ (%)	KV (J)	
770	800	19	-40°C	75
			-60°C	60

Welding Current & Instructions

Welding mode	Wire Ø (mm)	Welding parameters			Shielding Gas
		Current (A)	Voltage (V)	Stick-out (mm)	
= +	1.0	160 - 270	21 - 34	10 - 25	ISO 14175 : M21 (Ar/CO ₂) 15 l/min
	1.2	190 - 320	22 - 35		
	1.4	200 - 350	23 - 36		
	1.6	210 - 380	23 - 37		

FT En-CF11-160211



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