



# FCW 79-M

*Metal cored wire all positions  
For high strength steels*

## Classification

AWS A5.28 : E120C-H4

ISO 18276-A

T 89 6 Z M M 1 H5

## Description & Applications

Metal cored wire, Nickel, Chromium and Molybdenum alloyed for welding in all positions low alloyed and high strength steels with Ar + CO<sub>2</sub> shielding gas. Exceptional mechanical properties at low temperatures (-60°C). Good weldability, excellent bead appearance, and low spatters losses.

**Main applications:** Cranes, vessel and apparatus construction

**Base material:**

### High strength steels

|                 |  |
|-----------------|--|
| EN- Designation | S690Q - S890Q, S690QL - S890QL, S960Q, S960QL, PAS 700, alform 700 M, alform 900 x-treme, alform 960 x-treme |
| ASTM            | ASTM A 709 Gr. 100 Type B, E, F, H, Q, HPS 100W  |

## Typical Chemical Composition ( % )

| C    | Si   | Mn   | Cr   | Ni   | Mo   | Cu    | V     | P     | S     | Fe   |
|------|------|------|------|------|------|-------|-------|-------|-------|------|
| 0.10 | 0.50 | 1.85 | 0.40 | 2.60 | 0.55 | <0.35 | <0.03 | 0.015 | 0.015 | Rem. |

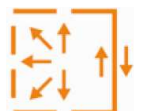
## Typical All Weld Metal Mechanical Properties

| R <sub>e</sub> (MPa) | R <sub>m</sub> (MPa) | A <sub>5</sub> ( % ) | KV ( J ) |    |
|----------------------|----------------------|----------------------|----------|----|
| 980                  | 1080                 | 17                   | -40°C    | 58 |
|                      |                      |                      | -60°C    | 55 |

## Welding Current & Instructions

| Welding mode | Wire Ø (mm) | Welding parameters |             |                | Shielding Gas   |
|--------------|-------------|--------------------|-------------|----------------|---|
|              |             | Current (A)        | Voltage (V) | Stick-out (mm) |   |
| FCAW<br>= +  | 1.0         | 160 - 270          | 21 - 34     | 10 - 25        | ISO 14175 :<br>M21 (Ar/CO <sub>2</sub> )<br>12 - 15 l/min |
|              | 1.2         | 190 - 320          | 22 - 35     |                |   |
|              | 1.4         | 200 - 350          | 23 - 36     |                |   |
|              | 1.6         | 210 - 380          | 23 - 37     |                |   |

FT En-CF13-160211



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