

MEGAFIL[®] 710 M



AWS A5.18: E70C-6M H4

AWS A5.36: E81T15-M21A8-CS1-H4

EN ISO 17632-A: T 46 6 M M21 1 H5

WELDING POSITIONS:



FEATURES	BENEFITS	APPLICATIONS
<ul style="list-style-type: none"> Extremely low diffusible hydrogen weld deposit Good reignition characteristics Ideal for use of short arc and spray arc Excellent gap bridging for root welding High deposition rate and efficiencies Virtually no slag coverage Smooth arc characteristic No Nickel, Low Hardness high quality weld 	<ul style="list-style-type: none"> Minimized risk of hydrogen-induced cracking No re-drying Suitable for robot applications CTOD tested -20 °C Reduces clean-up time, improves productivity Root welding without backing Automatic root welding possible Meets NACE (HIC & SSC) requirements for sour service welding application in oil & gas industry 	<ul style="list-style-type: none"> Automatic and mechanized welding Steel structures Offshore structures Pipelines Non-alloy and fine grain steels Vessels General fabrication Heavy equipment Single and multi-pass welding

WIRE TYPE	Gas shielded metal-cored wire
SHIELDING GAS	75-85% Argon (Ar) / Balance Carbon Dioxide (CO ₂); 100% Carbon Dioxide (CO ₂); Gas flow 12-18 l/min (25-38 cfm)
TYPE OF CURRENT	Direct Current Electrode Positive (DCEP)
STANDARD DIAMETERS	Ø 1.0 - 2.4 mm (0.039 - 3/32")
TYPICAL DIFFUSIBLE HYDROGEN*	< 3.0 ml / 100 g; Guaranteed for the total processing time < 4.0 ml / 100 g maximum (AWS Spec)
RE-DRYING	Not required due to seamless wire design.
STORAGE	The same conditions as for solid wire. Product should be stored in a dry, enclosed environment, in its original undamaged packaging

*Measurement technique is the carrier gas method according to AWS and ISO

MATERIALS TO BE WELDED*

Shipbuilding steels		A, B, D, AH 32 - EH 36
Unalloyed structural steels	Rel ≤ 355 MPa	S185 - S355, A 106 Gr.B, A 333 Gr.6
Boiler steels	Rel ≤ 355 MPa	P235GH - P355GH
Pipe steels	Rel ≤ 460 MPa	P235T1/T2 - P46NL2; L210 - L445MB
Fine grain structural steels	Rel ≤ 460 MPa	S235 - S460QL1
Steels to API-standard	Rel ≤ 460 MPa	X42 - X60

*) The specified base materials are not complete and should only be seen as examples. The selection of the appropriate combination of steel and welding consumable should follow the specific mechanical strength and toughness requirements.

ALL WELD METAL CHEMISTRY (%) (typical values for mixed gas 82% Ar / 18% CO₂)

Carbon (C)	0.05	Nickel (Ni)	-
Manganese (Mn)	1.5	Molybdenum (Mo)	-
Silicon (Si)	0.7	Chromium (Cr)	-
Sulphur (S)	0.015		
Phosphorus (P)	0.015		

ALL WELD METAL MECHANICAL PROPERTIES (for mixed gas 82% Ar / 18% CO₂)

Mechanical tests	Typical values MPa (ksi)	ISO Specification MPa (ksi)
Tensile Strength Rm	600 (87)	550 - 680 (80 - 99)
Yield strength Rp0.2	530 (77)	> 460 (67)
Expansion A5	28%	26%

CHARPY V-NOTCH IMPACT VALUES (for mixed gas 82% Ar / 18% CO₂)

Mechanical tests	Typical values [J] (ft.lbf)	ISO Specification [J] (ft.lbf)
-40 °C	140 (103)	> 47 (35)
-60 °C	100 (74)	> 47 (35)

APPROVALS: CE, TÜV, DB, ABS, BV, CWB, DNV-GL, LR, RINA, RMRS

Please contact the manufacturer to learn the present scope of approvals