MEGAFIL® 807 M

AWS A5.28: ~E120C-G H4
(E110C-G H4 - PWHT (680°C/2h))

EN ISO 18276-A: T 89 0 Z M M21 1 H5
(T 69 0 Z M M21 1 H5 - PWHT (680°C/2h))

WELDING POSITIONS :

FEATURES	BENEFITS	APPLICATIONS
• Extremely low diffusible hydrogen weld deposit	• Heat treatable weld metal	• Automatic and mechanized welding
• Good reignition characteristics	• Minimizes risk of hydrogen-induced cracking	• Steel structures
• Ideal for use of short arc and spray arc	• No re-drying	• Offshore structures
• Excellent gap bridging for root welding	• Suitable for robot applications	• Pipelines
• High deposition rate and efficiencies	• Reduces clean-up time, improves productivity	• Non-alloy and fine grain steels
• Virtually no slag coverage	• Root-welding without any backing	• Vessels
• Smooth arc characteristic	• Automatic root welding automatically possible	• General fabrication
		• Single and multi-pass welding

WIRE TYPE	Gas shielded metal-cored wire
SHIELDING GAS	75-85% Argon (Ar) / Balance Carbon Dioxid (CO_2); Gas Flow 12-18 l/min (25-38 cfh)
TYPE OF CURRENT	Direct Current Electrode Positive (DCEP)
STANDARD DIAMETERS	Ø 1.2 mm (0.045“)
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*

TM pipesteels	Rel ≤ 890 MPa	up to S890QL1
Pipe steels	Rel ≤ 890 MPa	to X120
Fine grain structural steels	Rel ≤ 890 MPa	S890 - S1100QL1
ASTM	Rel ≤ 890 MPa	A517
*) 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 CHEMESTRY (%) (typical values for mixed gas 82% Ar / 18% CO_2)

Carbon (C)	0.05	Nickel (Ni)	2.3
Manganese (Mn)	1.7	Molybdenum (Mo)	0.6
Silicon (Si)	0.6	Chromium (Cr)	0.6
Sulphur (S)	0.015		
Phosphorus (P)	0.015		

ALL WELD METAL MECHANICAL PROPERTIES (for mixed gas 82% Ar / 18% CO_2)

Mechanical Tests	Typical values MPa (ksi) as welded / heat treated 680 °C (1256 °F) / 120 min		ISO Specification MPa (ksi) as welded / heat treated 680 °C (1256 °F) / 120 min	
Tensile Strength Rm	980 (142)	900 (130)	940 - 1180 (136 - 171)	800 - 950 (116 - 138)
Yield strength Rp0.2	930 (135)	740 (107)	> 890 (129)	> 700 (102)
Expansion A5	17%	20%	15%	15%

CHARPY V-NOTCH IMPACT VALUES (for mixed gas 82% Ar / 18% CO_2)

Mechanical Tests	Typical values [J] (ft.lbf)	ISO Specification [J] (ft.lbf)
0 °C	80 (59)	> 47 (35)
-20 °C	60 (44)	> 27 (20)

APPROVALS: CE

Please contact the manufacturer to learn the present scope of approvals