Pipeliner® 81M

Key Features

- Consistent Arc – Designed for optimal performance in automated pipe welding applications where a consistent arc length is critical.
- Flat Bead Shape – Fast freezing slag provides consistent puddle support all the way around the pipe.
- Impact Toughness – Capable of producing weld deposits with impact toughness exceeding 27 J at -40°C.
- Q2 Lot® Control and Tested – Certificate showing actual deposit chemistry and mechanical properties per lot available online.
- ProTech® Packaging – Hermetically sealed packaging for moisture resistance.

Typical Applications

- Hot, fill and cap pass welding on up to X70 grade pipe
- Fully automated pipe welding
- Semi-automatic pipe welding
- Meets requirements for NACE applications

Shielding Gas

75-85% Argon/Balance CO_2

Flow Rate: 20-30 L/min

Conformances

AWS A5.29/A5.29M: E81T1-GM-H4

Welding Positions

Diameter / Packaging

Diameter mm	Part Number	Packaging
1.2	ED033320	4.5 kg Plastic Spool (Vacuum Sealed Foil Bag)
1.2	ED033321	11.3 kg Plastic Spool (Vacuum Sealed Foil Bag)

Mechanical Properties - As Required per AWS A5.29 / A5.29M

	Yield Strength MPa	Tensile Strength MPa	Elongation %	Charpy V-Notch J @ -40°C
Requirements - AWS E81T1-GM	470 min	550-690	19 min	NS
Typical Results - As Welded	490	570-620	25	89-155

Deposit Composition

	%C	%Mn	%Si	%Cr	%S	%P
Typical Results - As Welded	0.06-0.07	1.51-1.72	0.32-0.39	0.05 max.	0.014 max.	0.015 max.
	%Ni	**%V**	**%B**	**Diffusible Hydrogen** (ml/100g weld deposit)		
Typical Results - As Welded	0.77-0.87	0.01	0.006-0.007	2.1-3		

Typical Operation Procedures

Diameter Polarity	CTWD mm	Wire Feed Speed in/min	Voltage volts	Current amps	Deposition Rate kg/hr
1.2 mm DC+	19	175-400	23-30	130-275	1.8-4.1

Subject to change – this information is accurate to the best of our knowledge at the time of printing.