

High-Strength, Low Alloy MIG Wire

MigTectic 80[®]

- Excellent arc stability and increased porosity control
- Produces radiographic quality welds
- Excellent impact resistance and high tensile strength

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MigTectic 80 is a low-alloy wire designed to produce high strength on a wide range of steels and low alloy Cr-Mo base metals. Its higher silicon level, with molybdenum and manganese, provides excellent arc stability and increased porosity control. MigTectic 80 also offers low spatter, yielding a flat bead with excellent impact values and high tensile strengths. MigTectic 80 produces radiographic quality and porosity-free welds, even on poorly cleaned base metals.

TECHNICAL DATA

Operating Conditions				
Current Type:	DCEP (+)			
Operating Conditions				
AWS Specification:	AWS A5.28 ER80S-D2			
Tensile Strength:	99,000 psi			
Yield Strength:	84,000 psi			
Elongation (1=5d):	22%			
Impact Strength:	Charpy V-notch 30 ft/lb @ -20°F			

SUGGESTED WELDING PARAMETERS:

Arc Mode	Diameter	Voltage	Amperage	Shielding Gas
Short-Arc	0.035"	19 - 25	75 - 175	75% Ar - 25% CO ₂
Spray-Arc	0.035"	23 - 26	160 - 200	98% Ar - 2% O ₂
Short-Arc	0.045"	20 - 27	100 - 200	75% Ar - 25% CO ₂
Spray-Arc	0.045"	23 - 29	170 - 375	98% Ar - 2% O ₂
Spray-Arc	1/16"	25 - 31	275 - 475	98% Ar - 2% O ₂

PROCEDURE FOR USE

PREPARATION: Clean weld area of scale and/or oxide. Check that the ground clamp is secure and in contact with a clean surface. Make sure all joints on thin gauge metals are tightly abutted with no gaps.

Note: Backing strips are useful in preventing burn-through.

TECHNIQUE: Be sure that the contact tip, gas diffuser, gas cup, and wire-drive rolls are suitable for the wire diameter and arc mode. Make a few practice runs to refine and optimize the Welding Parameters.

POST-WELDING: Allow parts to slow cool in still air.

TYPICAL APPLICATIONS

Excellent choice when welding ASTM A182, A217, A234 and A335 high temperature pipe, fittings, flanges and valves and A336 pressure vessel forgings.

Observe normal welding practices, respiratory protection and proper air fl ow pattern advised. For general welding practices, see AWS publications Z49.1 "Safety in Welding and Cutting and Allied Process". Welding is a completely safe process when performed in accordance with proper safety measures. Become familiar with local safety regulations before begin-ning welding operations. DO NOT operate welding equipment or use welding materials before you have thoroughly read the proper instruction manual(s).Please refer to the Eutectic internet site for Material Safety Data Sheet (MSDS) information.DISREGARDING THESE INSTRUCTIONS, AND/OR THE INSTRUCTIONS OF WELDING EQUIPMENT OR MATERIAL MANUALS, MAY BE HAZARDOUS TO YOUR HEALTH.



Eutectic Corporation: N94 W14355 Garwin Mace Dr. Menomonee Falls WI, 53051 USA +1 800. 558. 8524 • eutectic.com

Eutectic Canada:

428, rue Aimé-Vincent, Vaudreuil-Dorion Québec J7V 5V5 Canada +1 800. 361. 9439 • eutectic.ca



