



Specialy Formulated TIG Rod for
Enhanced Corrosion Oxidation Resistance

TigTectic® **6800**



- Ideal for high temperature oxidization resistance up to 1800°F (982°C)
- Good nitric acid and chloride corrosion resistance
- Excellent comparative mechanical properties

TigTectic® 6800

TigTectic 6800 TIG rod deposits weld metal high in corrosion resistance to nitric acid and chloride-containing solutions. Excellent high-temperature oxidation resistance up to 1800°F (982°C).

TECHNICAL DATA

Typical Values

Tensile Strength:	85,000 psi (827 N/mm ²)
Yield Strength:	65,000 psi (545 N/mm ²)
Elongation (1=5d):	min. 30%
Hardness As-Deposited:	210 HRB - work hardens in service
Maximum Temperature:	1800°F (982°C) steady-state
Current & Polarity:	DCEN (-)

SUGGESTED WELDING PARAMETERS:

Diameter	Amperage	Cup Size	Shielding Gas
1/16" (1.6mm)	70 - 110	1/2"	100% Argon
3/32" (2.4mm)	90 - 130	3/4"	100% Argon

PROCEDURE FOR USE

PREPARATION: Clean joint and/or broken parts. Lightly bevel cracks by grinding.

Note: The selection of the preferred thoriated or lanthium tungsten electrode diameter will depend on the material thickness and corresponding amperage range. This applies similarly to gas cup size.

Note: Make sure that the tip of the electrode is ground with the proper taper for better heat localization. Preheating is normally not required when welding high nickel alloys. For tool steel welding refer to the Reference Section for recommended preheat and inter-pass temperatures.

TECHNIQUE: Adjust argon shielding gas flow. Complex or large parts should be supported by jigs. Use a copper arc-starting block to prevent random arc strikes and consequential hard-spotting. Adjust the stand-off distance so that the molten pool is always protected by the shielding gas and allow the rod/wire-end to solidify before removing from the protective gas envelope.

POST WELDING: For air hardening steels slow cool using available insulating materials. For less-sensitive base metals, slow cool out of drafts.

TYPICAL APPLICATIONS

- Hot Working Blocker Dies
- Pickling & Plating Tanks
- Pressure Valves
- Press Punches
- Pump Vanes
- Shear Blades
- Trim Tools
- Die Rings



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