



High Quality Filler Metal for  
Plain-Carbon and Low-Alloy Steels

# **TigTectic®**

## **66**



- High Ductility and impact properties
- Excellent puddle control
- Dense, crack-resistant deposits

# TigTectic® 66

TigTectic 66 is a medium strength filler rod excellent for the welding of plain carbon and low-alloy steels. Its properties allow TigTectic 66 to also be used as a buffer or scavenging layer and for joining or repair of heat-treatable steels where matching properties or heat treatment response are not required.

## TECHNICAL DATA

### Typical Values

<b>Tensile Strength:</b>	75,000 psi (517 N/mm <sup>2</sup> )
<b>Yield Strength:</b>	61,000 psi (420 N/mm <sup>2</sup> )
<b>Elongation (1=5d):</b>	min. 25%
<b>Current &amp; Polarity:</b>	DCEN (-) or AC
<b>Shielding Gas:</b>	100% Argon @ 20 scfh.

### SUGGESTED WELDING PARAMETERS:

Diameter	Amperage
1/16" (1.6mm)	100 - 145
3/32" (2.4mm)	140 - 170
1/8" (3.2mm)	150 - 200

*Note: Amperage ranges provided are based on the diameter of the tungsten electrode. Thicker pieces require higher amperage value and ranges should be adjusted accordingly.*

## PROCEDURE FOR USE

**PREPARATION:** Clean weld area of scale and oxide. Remove grease and oil by using a suitable VOC-free solvent. Grind a lengthwise taper on the tungsten electrode and set so that about 1/8" of the electrode protrudes past the gas cup edge. Preheating is generally not needed when welding stainless steels. For hardenable tool steel verify preheat/interpass temperatures with an expert.

**100% Argon backing gas is strongly recommended for full penetration welds.**

**TECHNIQUE:** Start the arc by using impulse high-frequency or by using a copper startblock. **Do not use a carbon block as this will contaminate the weld deposit!** Deposit stringer beads. **Do not weave more than 2x, as wide beads can cause distortion.**

**POST WELDING:** Allow work piece to cool.

## TYPICAL APPLICATIONS

- Medium pressure pipeline welding
- Railcar welding
- Auto body repairs
- Tank fabrications
- Pipe flanges
- Frame assemblies



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