



Premium Open Arc Wire for Joining  
and Protective Cladding

# **TeroMatec®**

## **0A 688**



- High deposition rate increases efficiency
- Ultra high strength for maximum crack resistance
- Offers superior resistance to spalling when used as a cushion layer
- Good for plain carbon and medium-to-high alloy steels

# TeroMatec® OA 688

TeroMatec OA 688 is a high chromium-nickel alloy formulated for joining plain-carbon and medium to high alloy steels when base metal cracking is a problem. When used as a cushion layer, it offers superior spalling resistance under impact.

## TECHNICAL DATA

Typical Values	
Tensile Strength:	105,000 psi (724 MPa)
Yield Strength:	84,000 psi (579 MPa)
Elongation (1=5d):	26%
Polarity:	DC (+) Electrode Positive

	AMPERAGE RANGE	VOLTAGE RANGE	STICK-OUT
7/64" (2.8 mm)	250-340	26-30	2.5" +/- 1/4"

*Note: parameter adjustments will be needed depending upon the size, weight, and shape of the part. For optimum wear resistance, keep to the low end of the amperage and voltage ranges.*

## PROCEDURE FOR USE

**Preparation:** Remove all contaminants, particularly oil & grease. Lightly grind surface to remove superficial oxides. Preheat according to the base metal make-up and potential to air harden. For tool steel surfacing use the recommended preheat & interpass temperatures for the grade and type.

*Note: do not preheat 14% manganese steel!*

**Technique:** Always use the lowest practical amperage range to minimize dilution. Use a circular weaving motion to obtain a compact deposit. De-slag. Second and subsequent passes should tie-in to the weld deposit toe so as to avoid interpass "valleys". Adopt a balanced welding technique to minimize base metal overheating.

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

## TYPICAL APPLICATIONS

Cladding for cement clinker hammers. As a cushion layer. Recommended for joining manganese steel castings to fabricated steel assemblies. Welding wear plate, chassis, highly stressed frames and conveyor flights. Also for large-size tool and die repairs.

