



Self-Shielded Flux-Cored Wire  
for Open Arc Welding

# **TeroMatec®**

## **0A2600**



- Excellent refill properties when repairing critical casting defects
- Suitable for welding gray, ductile and malleable cast irons
- Optimal for filling defects in large castings and for rebuilding cast iron rolls

# TeroMatec® OA2600

TeroMatec OA2600 is a self-shielded flux-cored wire for repairing foundry defects in a variety of cast irons. Also recommended for re-building missing sections on massive, large cross-sectional castings. Suitable for welding malleable cast irons such as the ferritic and pearlitic grades.

## TECHNICAL DATA

Typical Values	
<b>Structure:</b>	Ferrite-pearlite matrix with randomly oriented interdendritic "D" type flake graphite.
<b>Hardness as-deposited on ferritic cast iron:</b>	30-36 HRC
<b>Hardness as-deposited on SAE 1015 carbon steel:</b>	36 HRC
<b>Current polarity:</b>	DCEP (+)

Diameter	Volts	Amps	Wire Stickout	Pre-Heat & Interpass Temp.
7/64" (2.8mm)	22-24	220-280	2" ± 1/8"	1050°-1100°F ± 50°F (565°-593°C ± 10°C)
1/8" (3.2mm)	29-32	380-450	1.5" ± 1/8"	

### TYPICAL WELDING PARAMETERS: CHILLED IRON ROLLS High Heat Input Parameters

Diameter	Volts	Amps	Wire Stickout
7/64" (2.8mm)	24-28	280-350	2" ± 1/8"
1/8" (3.2mm)	30-32	480-550	1.5" ± 1/8"

*Note: Maintain the same weld puddle depth throughout the repair*

## PROCEDURE FOR USE:

**GENERAL WELDING PREPARATION:** Casting defects such as slag entrapment, porosity, risers, etc. should be removed using standard metal removal practices such as arc-air or ChamferTrode.

*Note: Preheating prior to part preparation is recommended. For large castings a preheat range of 500° - 700°F (260°- 371°C) is suggested.*

**WELDING PREPARATION FOR CHILLED IRON ROLLS:** Superficially grind to remove obvious surface defects. Although preheating is a preferred step it can be omitted by using a high heat input welding technique.

**POST-WELDING TREATMENT:** After welding is completed slowly cool either in a preheated oven set at 1000°F (538°C) cooling at the rate of 100°F (38°C) per hour. Or wrap in a silicone blanket or bury in vermiculite to retard cooling.

*Note: When cast irons are heated near the melting point nearly all of the carbon goes into solution with the iron in the form of iron carbide. If the iron is cooled rapidly a large portion of the carbon will remain combined with the iron as iron carbides. However, if the welded cast iron part is allowed to cool very slowly nearly all of the carbon will pass out of the combined state and segregate as free graphite flakes resulting in a base metal and weld deposit which is both soft and machinable.*

## TYPICAL APPLICATIONS

Can be used to weld gray cast irons, pearlitic ductile irons, and for surfacing chilled cast iron rolls using open-arc welding procedures. Excellent refill properties when repairing critical casting defects.

- Rebuilding and joining cast iron
- Surfacing prior to hardfacing
- Joining cast iron to steel
- Lathe beds, housings, casing, and axles



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