TRITEN® T-23

Triten® T-23 is a highly engineered hardfacing alloy in tubular (metal-cored) wire form. When properly applied, it produces a complex multi-carbide matrix that substantially outperforms standard chromium cast irons.

It is designed for severe abrasive wear with moderate impact, particularly in elevated temperature environments up to ~600°C (1,110°F).

Key Strengths

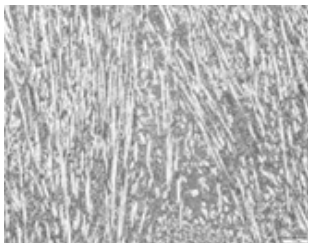
- Complex carbide system
- Significantly improved wear life over standard Cr-carbide alloys
- Strong performance at elevated temperatures
- Excellent balance of abrasion resistance and toughness
- Predictable welding and fabrication behavior

Details / Features

- Metal-cored (tubular) wire
- Open-arc or gas-shielded operation
- 1–2 layers recommended
- Stress-relief cracking is normal and expected
- Plasma cutting recommended
- Designed for high-performance hardfacing overlays

Metallurgical Structure

Triten® T-23 exhibits a highly alloyed hypereutectic multi-carbide system with a dense population of primary and secondary complex carbides distributed within a refined eutectic matrix.



Material Properties

C	Si	Cr	Nb	Mo	W	V	Hardness
~ 5.5%	~ 1%	~ 22%	~ 6%	~ 5%	~ 2%	~ 1%	63-66 HRC

Welding Parameters

Wire Diameter		Amperage		Voltage		Stick-out		Shielding Gas (if Used)
1.6 mm	1/16"	~ 250	150 - 350	~ 24	24 - 30	~ 25 mm	~ 1"	Ar/CO_2 Mix or 100% CO_2
2.4 mm	3/32"	~ 350	250 - 450	~ 28	28 - 32	~ 30 mm	~ 1-1/4"	
2.8 mm	7/64"	~ 400	250 - 450	~ 30	28 - 32	~ 38 mm	~ 1-1/2"	

Typical Applications

- Slurry pipe systems
- Blast furnaces
- Cement mill and clinker processing
- High-temp, abrasive environments
- Rolling equipment
- Steel fabrication

WWW.ARNCOTECH.COM
+1-832-214-5200
orders@arncotech.com

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