TRITEN® T-34

Triten® T-34 is a highly engineered hardfacing alloy in tubular (metal-cored) wire form. When properly applied, it produces a high-chromium cast iron deposit with hard chromium carbides in a strengthened austenitic matrix.

It is designed for severe abrasive wear with moderate impact or vibration, offering an improved balance of hardness and toughness compared to standard chromium-carbide alloys.

Key Strengths

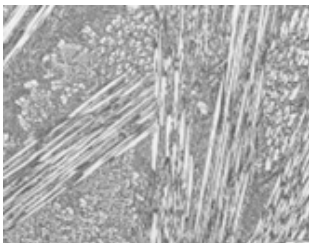
- Higher hardness over standard Cr-carbide alloys
- Improved toughness due to mo-strengthened matrix
- Uniform carbide distribution

Details / Features

- Metal-cored (tubular) wire
- Open-arc or gas-shielded operation
- 2–3 layers recommended
- Stress-relief cracking is expected
- Plasma cutting recommended
- Designed for abrasion-dominant service with improved durability

Metallurgical Structure

Triten® T-34 exhibits a hypereutectic multi-component carbide microstructure consisting of primary chromium-rich carbides with a refined eutectic matrix containing dispersed Mo and V rich secondary carbides and borides, supported by a predominantly martensitic matrix with retained austenite.



Material Properties

C	Cr	Mo	Si	V	Hardness
~ 5%	~ 22%	~ 3.5%	~ 1%	~ 1%	64-68 HRC

Welding Parameters

Wire Diameter		Amperage		Voltage		Stick-out		Shielding Gas (if Used)
1.6 mm	1/16"	~ 250	160 - 320	~ 26	24 - 30	~ 25 mm	~ 1"	Ar/CO_2 Mix or 100% CO_2
2.4 mm	3/32"	~ 350	250 - 450	~ 28	26 - 32	~ 30 mm	~ 1-1/4"	
2.8 mm	7/64"	~ 425	350 - 550	~ 29	26 - 32	~ 38 mm	~ 1-1/2"	

Typical Applications

- Bucket lips and side liners
- Crusher feed zones
- Paddles, mixer arms, blades
- Excavation and earth-moving
- Screw conveyors
- Sinter, clinker

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