

# WEARTECH® WT-12 TIG

Cobalt ▪ AWS A5.21 ERCoCr-B

## KEY FEATURES

- Cobalt, very high chromium, high carbon, high tungsten electrode
- Very resistant to wear, corrosion, and galling at high temperatures
- Intermediate alloy between WT-1 and WT-6
- Maintains hardness up to 1300°F (700°C)

## WELDING POSITIONS

All

## TYPICAL APPLICATIONS

- Chain Saw Bars
- Saw Teeth
- Extrusion Dies

## WELDING PROCESSES

- Gas Tungsten Arc Welding
- Oxyfuel Welding

## DIAMETERS / PACKAGING

Diameter in (mm)	10 lb (4.5 kg) Carton
3/32 (2.4)	B1120-240X915
1/8 (3.2)	B1120-320X915
5/32 (4.0)	B1120-400X915
3/16 (4.8)	B1120-480X915
1/4 (6.4)	B1120-640X915

## WIRE COMPOSITION<sup>(1)</sup>

	%C	%Mn	%Si	%Cr	%Ni
<b>Requirements</b> AWS A5.21 ERCoCr-B	1.2-1.7	1.0 max	2.0 max	26-32	3.0 max
<b>Typical Results</b>	1.4	0.1	1.4	29.5	2.5
	%Fe	%Mo	%W	%Co	Hardness, Rc
<b>Requirements</b> AWS A5.21 ERCoCr-B	3.0 max	1.0 max	7.0 -9.5	Balance	Not Required
<b>Typical Results</b>	2.6	0.1	8.8	53	47

## TYPICAL OPERATING PROCEDURES

Polarity	Current (Amps) 1/8 in (3.2 mm)
DC-	115-135

<sup>(1)</sup>Composition and properties depend upon dilution. Single layer deposit properties depend upon base metal and/or build-up material.

IMPORTANT: SPECIAL VENTILATION AND/OR EXHAUST REQUIRED

Fumes from the normal use of some welding products can contain significant quantities of components - such as chromium and manganese - which can lower the 5.0 mg/m<sup>3</sup> maximum exposure guideline for general welding fume.

BEFORE USE, READ AND UNDERSTAND THE SAFETY DATA SHEET (SDS) FOR THIS PRODUCT AND SPECIFIC INFORMATION PRINTED ON THE PRODUCT CONTAINER.

*Material Safety Data Sheets (MSDS) and Certificates of Conformance are available on our website at [www.lincolnelectric.com](http://www.lincolnelectric.com)*

#### TEST RESULTS

Test results for mechanical properties, deposit or electrode composition and diffusible hydrogen levels were obtained from a weld produced and tested according to prescribed standards, and should not be assumed to be the expected results in a particular application or weldment. Actual results will vary depending on many factors, including, but not limited to, weld procedure, plate chemistry and temperature, weldment design and fabrication methods. Users are cautioned to confirm by qualification testing, or other appropriate means, the suitability of any welding consumable and procedure before use in the intended application.

#### CUSTOMER ASSISTANCE POLICY

The Lincoln Electric Company is manufacturing and selling high quality welding equipment, consumables, and cutting equipment. Our challenge is to meet the needs of our customers and to exceed their expectations. On occasion, purchasers may ask Lincoln Electric for information or advice about their use of our products. Our employees respond to inquiries to the best of their ability based on information provided to them by the customers and the knowledge they may have concerning the application. Our employees, however, are not in a position to verify the information provided or to evaluate the engineering requirements for the particular weldment. Accordingly, Lincoln Electric does not warrant or guarantee or assume any liability with respect to such information or advice. Moreover, the provision of such information or advice does not create, expand, or alter any warranty on our products. Any express or implied warranty that might arise from the information or advice, including any implied warranty of merchantability or any warranty of fitness for any customers' particular purpose is specifically disclaimed.

Lincoln Electric is a responsive manufacturer, but the selection and use of specific products sold by Lincoln Electric is solely within the control of, and remains the sole responsibility of the customer. Many variables beyond the control of Lincoln Electric affect the results obtained in applying these types of fabrication methods and service requirements.

Subject to Change – This information is accurate to the best of our knowledge at the time of printing. Please refer to [www.lincolnelectric.com](http://www.lincolnelectric.com) for any updated information.