



TUNGSTEN

U.S. ALLOY CO.
dba Washington Alloy
825 Groves St
Lowell, NC 28098
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Quality Management System
in accordance with
ISO 9001
Cert # 05-R0925



Color code RGB # CLASSIFICATION (ISO 6848 CLASS) Chemical Composition requirements		PART # / Diameter {mm} all in 7" or 175 mm long	Intended use on Electrodes
Green #008000 EWP (WP)	Pure	TTU PT 03G / 0.040" (1.0) TTU PT 04G / 1/16" (-1.6) TTU PT 04G-12 / 1/16" (-1.6) 12" Long TTU PT 05 / 3/32" (2.4) 12" Long TTU PT 05G / 3/32" (2.4) TTU PT 045G / 5/64" TTU PT 06 / 1/8" (3.2) 12" Long TTU PT 06G / 1/8" (3.2) TTU PT 07G / 5/32" (4.0)	Commercially pure with no additives which is great for lower amperage range and Alternation Current on welding of aluminum or magnesium alloys. Maintaining a clean, balled end with Argon or helium or a combination of both gases on low temperature base metal of the Aluminum and Magnesium families
Gray #808080 EWCe-2 (WCe 20) 1.8-2.2 CeO ₂	2% Ceriated	TTU C/T 03 / 0.040" (1.0) TTU C/T 04 / 1/16" (-1.6) TTU C/T 05 / 3/32" (2.4) TTU C/T 06 / 1/8" (3.2) TTU C/T 07 / 5/32" (4.0)	These electrodes work well on Alternation Current or Direct current and is found with easy of starting, improved arc stability, reduced burn-off or vaporization compared to pure tungsten
Black #000000 EWLa-1 (WLa 10) 0.8-1.2 La ₂ O ₃	1% Lanthanated		These electrodes have similar operation and advantages as the 2% Ceriated
Gold #FFD700 EWLa-1.5 (WLa 15) 1.3-1.7 La ₂ O ₃	1.5% Lanthanated	TTU GLT 03 / 0.040" (1.0) TTU GLT 04 / 1/16" (-1.6) TTU GLT 05 / 3/32" (2.4) TTU GLT 06 / 1/8" (3.2) TTU GLT 07 / 5/32" (4.0)	These electrodes work well on Alternation Current (AC) or Direct current electrode negative (DCEN) and is found with enhanced of starting, improved arc stability, reduced tip erosion rate and extended range of operation.
Blue #0000FF EWLa-2.0 (WLa 20) 1.8-2.2 La ₂ O ₃	2% Lanthanated	TTU L/T 03 / 0.040" (1.0) TTU L/T 04 / 1/16" (-1.6) TTU L/T 05 / 3/32" (2.4) TTU L/T 06 / 1/8" (3.2) TTU L/T 07 / 5/32" (4.0) TTU L/T 08 / 3/16" (4.8)	These electrodes work well on Alternation Current(AC) or Direct current (DCEN) electrode negative and is found with the highest additive percent of all enhanced of starting, improved arc stability, reduced tip erosion rate and extended range of operation.
Yellow #FFFF00 EWTh-1 (WTh 10) 0.8-1.2 ThO ₂	1% Thoriated	TTU 1%TUNGSTEN 03 / 0.040" (1.0) TTU 1%TUNGSTEN 04 / 1/16" (1.5)	These 1% Thoriated electrodes were designed for direct current and hold a sharpened point well which is used on steel. Satisfactory in the Alternation Current (AC) mode with a ball end for nonferrous materials
Red #FF0000 EWTh-2 (WTh 20) 1.7-2.2 ThO ₂	2% Thoriated	TTU 2%TUNGSTEN 03 / 0.040" (1.0) TTU 2%TUNGSTEN 04 / 1/16" (1.5) TTU 2%TUNGSTEN 042 / (2.0) TTU 2%TUNGSTEN 05 / 3/32" (2.4) TTU 2%TUNGSTEN 054 / 5/64" TTU 2%TUNGSTEN 056 / 3/32" (2.4) x 6" TTU 2%TUNGSTEN 06 / 1/8" (3.2) TTU 2%TUNGSTEN 07 / 5/32" (4.0) TTU 2%TUNGSTEN 08 / 3/16" (4.8) TTU 2%TUNGSTEN 09 / 1/4" (6.4) TTU 2%TUNGSTEN 10 / 5/16"	These electrodes are the most common and designed primarily for direct current and hold a sharpened point well which and has with improved operating improvements over the 1% Thoriated. With the greater electron emissivity over pure tungsten you will find greater current ranges, easier arc starts, longer life, and more stable arc profile. Used on plain carbon steels, Low alloy steels, Stainless Steels, Nickels alloys, Titanium alloys and Copper or Copper base alloys
Violet #EE82EE (WTh 30) 2.8-3.2 ThO ₂	3% Thoriated		Not currently used in the United States
Brown #A52A2A EWZr-1 (WZr 3) 0.15-0.50 ZrO ₂	0.3% Zirconiated	TTU Z/T 03 / 0.040" (1.0) TTU Z/T 04 / 1/16" (-1.6) TTU Z/T 05 / 3/32" (2.4) TTU Z/T 06 / 1/8" (3.2) TTU Z/T 07 / 5/32" (4.0) TTU Z/T 08 / 3/16" (4.8) TTU Z/T 10 / 5/16" TTU Z/TG 05 / 3/32" (2.4) TTU Z/TG 06 / 1/8" (3.2)	These electrodes are preferred for welding when resistance to contamination is a must and has better starts while retaining the balled tip and excellent uses with Alternation Current (AC) on Aluminum and Magnesium alloys
White #FFFFFF EWZr-8 (WZr 8) 0.7-0.9 ZrO ₂	0.8% Zirconiated		Not commonly used in the United States Same use as 0.3% Zirconiated
Purple #800080 Manufacturer choice of unused color EWG Washington Alloy uses PURPLE 1.5La, 0.08Zr, 0.08 Y	Rare Earth	TTU 3TH 03 / 0.040" (1.0) TTU 3TH 04 / 1/16" (-1.6) TTU 3TH 05 / 3/32" (2.4) TTU 3TH 06 / 1/8" (3.2) TTU 3TH 07 / 5/32" (6.0)	T3 PURPLE with its triple element composition are engineered to provide a longer lasting tip life with a great stable arc profile while seeing less heat on the non-consumable electrode yielding an excellent weld on all metals. Similar uses as EWTh-2 2% Thoriated as well as best replacement for non-radioactive additive.
Gray	Was formerly the color identification for EWG in 1998	Orange	Was formerly the color identification for EWCe-2 in 1998 now it is Gray

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