



THE PROPER SELECTION AND PREPARATION OF TUNGSTEN ELECTRODES FOR ARC WELDING

BASE METAL TYPE	THICKNESS RANGE	DESIRED RESULTS	WELDING CURRENT	ELECTORDE TYPE	COLOR TIPS	SHIELD GAS	TUNGSTEN PERFORMANCE CHARACTERISTICS
Aluminum Alloys and Magnesium Alloys	All	General Purpose	ACHF	Pure (EW-P)	Green(WP)	Argon	Balls easily, low cost, tends to spit at higher currents, used for non-critical welds only.
				2% Thoriated (EW-Th2)	Red(WT20)	75 Argon 25 Helium	Higher current range and stability, better arc starts, with lower tendency to spit, medium erosion.
	Only thin sections	Control penetration	DCRP	2% Ceriated (EW-Ce2)	Gray(WC20)	Argon Helium	Lowest erosion rate, widest current range, AC or DC, no spitting, best arc starts and stability.
	Only thick sections	Increase penetration or travel speed	DCSP	2% Thoriated (EW-Th2)	Red(WT20)	75 Argon 25 Helium	Best stability at medium currents, good arc starts, medium tendency to spit, medium erosion rate.
2% Ceriated (EW-Ce2)				Gray(WC20)	Helium	Low erosion rate, wide current range, AC or DC, no spitting consistent arc starts, good stability.	
Copper Alloys, Cu-Ni Alloys and Nickel Alloys	All	General Purpose	DCSP	2% Thoriated (EW-Th2)	Red(WT20)	75 Argon 25 Helium	Best stability at medium currents, good arc starts, medium tendency to spit, medium erosion rate.
				2% Ceriated (EW-Ce2)	Gray(WC20)	75 Argon 25 Helium	Low erosion rate, wide current range, AC or DC, no spitting, consistent arc starts, good stability.
	Only thick sections	Increase penetration or travel speed	DCSP	2% Ceriated (EW-Ce2)	Gray(WC20)	75 Argon 25 Helium	Low erosion rate, wide current range, AC or DC, no spitting, consistent arc starts, good stability.
Mild Steels, Carbon Steels Alloy Steels Stainless Steels and Titanium Alloys	All	General Purpose	DCSP	2% Thoriated (EW-Th2)	Red(WT20)	75 Argon 25 Helium	Best stability at medium currents, good arc starts, medium tendency to spit, medium erosion rate.
				2% Ceriated (EW-Ce2)	Gray(WC20)	75 Argon 25 Helium	Low erosion rate, wide current range, AC or DC, no spitting, consistent arc starts, good stability.
				2% Lanthanated (EWG-La2)	Blue(WL20)	75 Argon 25 Helium	Lowest erosion rate, highest current range on DC, no spitting, best DC arc starts and stability.
	Only thick sections	Increase penetration or travel speed	DCSP	2% Ceriated (EW-Ce2)	Gray(WC20)	75 Argon 25 Helium	Low erosion rate, wide current range, no spitting, consistent arc starts, good stability.
				1.5% Lanthanated (EWG-La2)	Gold(WL15)	Helium	Lowest erosion rate, highest current range, no spitting, best DC arc starts and stability.