



1. Product Overview

This product covers non-consumable tungsten electrodes (TUNGSTEN ROD) in accordance with AWS A5.12 / A5.12M, designed for TIG (GTAW) and plasma welding applications. The range includes pure tungsten, thoriated, ceriated, lanthanated, zirconiated, and composite types to meet various current requirements (DC/AC) and base material compatibility.

2. Classification & Color Code (Quick Reference)

Common Name	AWS Classification	ISO Classification	Tip Color Code	Key Composition
Pure Tungsten	EWP	WP	Green	W ≥ 99.5%
2% Thoriated	EWTh-2	WT20	Red	ThO ₂ : 1.70 – 2.20%
2% Ceriated	EWCe-2	WC20	Orange / Grey	CeO ₂ : 1.80 – 2.20%
1% Lanthanated	EWLa-1	WL10	Black	La ₂ O ₃ : 0.80 – 1.20%
1% Zirconiated	EWZr-1	WZ8	Brown	ZrO ₂ : 0.15 – 0.40%
Composite / Multi-Element	EW-G	WG	Grey	Mixed Rare Earth Oxides

Quick Selection Guide

Application Need	Recommended Type
DC welding of steel/stainless (performance priority)	EWTh-2 (Red)
DC welding requiring non-radioactive material	EWCe-2 (Orange/Grey) or EWLa-1 (Black)
AC welding of aluminum/magnesium (traditional)	EWP (Green)
AC welding of aluminum/magnesium (high performance)	EWZr-1 (Brown)
General-purpose replacement for thoriated	EWLa-1 (Black)

