



WELDCUT TIG ELECTRODE



**Tig Electrode for (GTAW) Welding acc. to
AWS A5.12M/A5.12:2009 & ASME SEC II PART C 2017 / ISO 6848:2015**



**EWTh-2 / WTh20
2% Thoriated**



**EWCe-2 / WCe20
2% Ceriated**



**EWG / WR
2% Rare Earth**

TIG ELECTRODE MANUFACTURING PROCESS

- 1) The tungsten metal powder and oxide additives are checked for grain size miscibility even before MIXING. The intensive mixing and good ensures a homogenous distribution of materials.
- 2) The subsequent COMPRESSION of the metal powder is carried out hydraulically and isostatically, whereby piping is avoided by the correct build-up of pressure upto 3000 bar, thus ensuring a uniform micro structure.
- 3) The pressed rods are then converted into metal by SINTERING. The exact observance of sintering parameter such as temperature, time and inert-gas purity guarantees a homogenous distribution of the admixture. This greatly improves the subsequent burn-off rate and ease of striking.
- 4) During the ROTATORY SWAGING of the sintered tungsten bar, the micro structure is selectively optimized by varying the process temperature.
- 5) In accordance with ISO6848/ANSI/AWS A5.12-92 the tungsten electrodes shall display no surface faults such as microcracks and scale. Moreover, the surface must be free of oil, grease or other impurities.

2% RARE EARTH - NON RADIOACTIVE

THORIUM FREE TIG ELECTRODE WITH MORE POWER

2% RARE EARTH is equivalent if not superior to thoriated tungsten electrodes for normal application because it causes:

- I) **NO CONTAMINATION** of the atmosphere through radioactive particles
- II) **NO RADIATION EXPOSURE** Moreover, **2% RARE EARTH** has further **advantages**:
 - Universal application for high and low alloy steels, non-ferrous and light metals
 - Good welding results with d.c.
 - Suitable for manual and automated welding
 - Very good striking characteristics for contact free (HF) and scratch or lift start
 - Stable arc throughout the whole load range up to 500 A
 - Prolonged service life through reduced burn-off rate.

2% RARE EARTH with its various admixture produces **excellent welding properties** in welding tests and **through practical field use**.

Size : Ø1.0 mm TO Ø10 mm
Length : Standard 150 mm Long
Material along with Batch Test Certificate

SAP INDUSTRIES

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OTHER SIZE / TYPE ON REQUEST

FOR A GENUINE "SAP" PRODUCT LOOK FOR HOLOGRAM

IN VIEW OF CONTINUOUS DEVELOPMENT, WE RESERVE THE RIGHT TO MODIFY THE COLOUR, DESIGN AND / OR DIMENSIONS WITHOUT NOTICE



PRE-GROUND TIG ELECTRODE



75 RMS



TYPICAL HAND GROUND

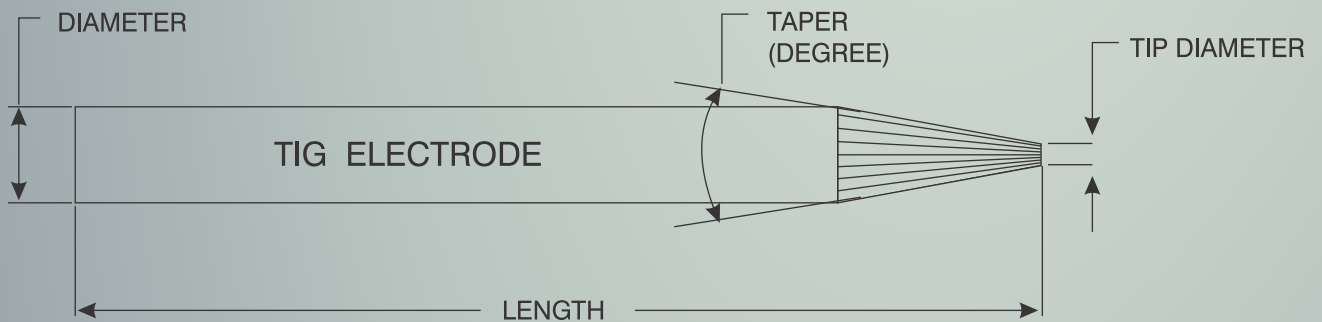
- ⊗ Inconsistent Finish
- ⊗ Incorrectly Grounded
- ⊗ Poor Arc Starting And Stability
- ⊗ Reduced Electrode Life
- ⊗ Risk Tungsten X-ray Defect
- ⊗ Involves Potentially Hazardous Hand Grinding

20 RMS



SAP STANDARD FINISH

- ⊗ Extremely Consistent Finish
- ⊗ Ground On Diamond Wheel
- ⊗ Longitudinal Grinding
- ⊗ Excellent Electrode Life
- ⊗ Exceeds All Standards Set For Tig Welding
- ⊗ Must For Orbitals / Plasma / Tubemills / Mechanical Auto TIG Process



TYPE - 2% Rare Earth, 2% Ceriated
 DIAMETER - 1.0 / 1.6 / 2.0 / 2.4 / 3.0 / 3.2 / 4.0 MM

OTHER TYPE AND/OR DIAMETER ON REQUEST

How to order :

TYPE	LENGTH	DIAMETER	TAPER	TIP DIA.	QUANTITY

Specify Tolerance On : Length / Diameter / Taper (Degree)