



## Tungsten Electrodes

- Oxides used are primarily zirconium, thorium, lanthanum or cerium
- Additions are 1% - 4%, improve arc initiation, especially when direct current (DC) welding is employed
- Thorium oxide (thoria), effective in terms of long life and thermal efficiency
- Zirconium oxide (zirconia) has been commonly used for alternating (AC) TIG welding, welding aluminum
- Electrode length: 7"
- Each package contains 10 electrodes**

### 2% THORIATED:

- Good current capacity, arc stability and easy arc start on DC current
- High resistance to weld pool contamination
- Maintains sharpened tip configuration
- Not normally used on AC current because it is difficult to maintain the balled end

### 0.8% ZIRCONIATED:

- Excellent for AC welding due to the higher arc stability
- High-resistance to weld pool contamination
- Excellent balled end retention
- Handles higher current with less spitting
- Better arc starts and arc stability than pure tungsten

### 1.5% LANTHANATED:

- Lowest erosion rate • Wide current range
- No spitting • Best DC arc starts and stability

### 2% CERIATED:

- Excellent arc starting, stability, long life and higher-current capacity than thoriated tungsten
- Operate successfully with AC or DC current
- Non-radioactive • Low erosion rate
- Wide current range • No spitting

### PURE:

- Lowest current capacity and least expensive
- Maintains a clean balled end for welding on AC
- More prone to weld contamination than other types of tungsten electrodes
- Tends to spit at higher currents • Used for non-critical welds only

### 2% LANTHANATED:

- Non-radioactive
- Best general purpose electrode at medium to higher amperages for both A/C or D/C using inverter or transformer based constant current power sources
- Good for low-alloyed steels, non-corroding steels, aluminum alloys, magnesium alloys, titanium alloys, nickel alloys, and copper alloys
- Good arc starts and stability, low erosion rate, medium to high current range

### LAYZR™:

- Non-radioactive
- Best for automated or robotic applications in A/C or D/C due to low voltage tolerance (changes in tip to work piece distance) using inverter or transformer based constant current power sources
- Good for low-alloyed steels, non-corroding steels, aluminum alloys, magnesium alloys, titanium alloys, nickel alloys, and copper alloys
- Very stable tip geometry runs cooler than 2% thoriated, longer life
- Very best low amperage starts



Model No.	Mfg. No.	ISO Colour Chart	Dia."	Price /Each
<b>2% THORIATED</b>				
TTT403	T0207GT2	Red	0.020	
NP552	T0407GT2	AWS A5.12 EWTh-2	0.040	
NP544	T1167GT2	ISO 6848 WT20	1/16	
NP545	T3327GT2		3/32	
NP543	T187GT2		1/8	
714-1150	T5327GT2		5/32	
<b>0.8% ZIRCONIATED</b>				
TTT408	T0207GZ	White	0.020	
TTT409	T0407GZ	AWS A5.12 EWZr-8	0.040	
NP546	T1167GZ	ISO 6848 WZ8	1/16	
NP547	T3327GZ		3/32	
NP553	T187GZ		1/8	
714-1185	T5327GZ		5/32	
<b>1.5% LANTHANATED</b>				
TTT404	T0207GL	Gold	0.020	
TTT405	T0407GL	AWS A5.12 EWLs-1.5	0.040	
714-1200	T1167GL	ISO 6848 WL15	1/16	
714-1205	T3327GL		3/32	
714-1210	T187GL		1/8	
TTT406	T5327GL		5/32	
<b>2% CERIATED</b>				
TTT407	T0207GC2	Grey	0.020	
NP548	T0407GC2	AWS A5.12 EWCe-2	0.040	
NP549	T1167GC2	ISO 6848 WC20	1/16	
NP550	T3327GC2		3/32	
NP551	T187GC2		1/8	
714-1177	T5327GC2		5/32	
<b>PURE</b>				
TTT410	T0207G	Green	0.020	
NP539	T0407G	AWS A5.12 EWP	0.040	
NP540	T1167G	ISO 6848 WP	1/16	
NP542	T3327G		3/32	
NP541	T187G		1/8	
714-1060	T5327G		5/32	
<b>2% LANTHANATED</b>				
TTV117	T0207GL2	Blue	0.020	
TTV118	T0407GL2	AWS A5.12 EWLs-2	0.040	
TTV119	T1167GL2	ISO 6848 WL20	1/16	
TTV120	T3327GL2		3/32	
TTV121	T187GL2		1/8	
TTV122	T5327GL2		5/32	
<b>LAYZR™</b>				
TTV111	T0207GTM	Chartreuse (Lime Green)	0.020	
TTV112	T0407GTM	AWS A5.12 EWG	0.040	
TTV113	T1167GTM	ISO 6848	1/16	
TTV114	T3327GTM		3/32	
TTV115	T187GTM		1/8	
TTV116	T5327GTM		5/32	

## Chem-Sharp

### CHEMICAL TUNGSTEN SHARPENERS

- Safest way to sharpen tungsten without grinding
- Chemically mills a perfect point on pure, thoriated or titanium type tungsten
- Repoint time is approximately one minute at the work station
- Extends tungsten life four times longer than that of ground tungsten
- 5 oz. net jars, over 500 sharpenings per jar

881-1305



Model No.	Mfg. No.	Description	Price /Each
881-1300	DF600-6	Jar, 5 oz. net	
881-1305	DF601-6	Tungsten Holder	
881-1310	DF602-4	Kit w/1 Jar and Holder	

## Tungsten Stick-Out Gauges

- Made of durable solid brass
- Easily lock-in, correct stick-out from the end of nozzle
- Face of gauge marked in 1/16" indications for easy calculation of required stick-out
- Consistent stick-out adds quality to every weld
- Repeatable for welder to welder



Model No.	Mfg. No.	Description	Price /Each
TTU279	TG1	For Standard Torch	
TTU280	TG1-24	For 24 Series and Micro Torch	