



Thoriated Tungsten Electrode: As traditional products, WT application area becomes more and more limited due to radioactive contamination.

Trade mark	Added impurity	Impurity quantity%	Other impurities %	Tungsten %	Electric discharged power	Color sign
WT20	ThO ₂	1.7-2.2	<0.20	The rest	2.0-3.0	Red

Pure Tungsten Electrode: Suitable for welding under AC mainly using when welding aluminum and aluminum-alloy.

Trade mark	Added impurity	Impurity quantity%	Other impurities %	Tungsten%	Electric discharged power	Color sign
WP20	-	-	<0.20	The rest	4.5	Green

Cerium Tungsten Electrode: is a product of top quality adopting international standard, helping inert gas to protect electric when welding and plasma cutting. Cerium oxide is used as additive so as to eliminate the radioactive contamination of Thoriated Tungsten and improve the circumstances of labour protection. The compressing strength of arc beam is narrower, more concentrated and more stable. The electric discharged power is 10% lower than that of Thoriated Tungsten Electrode. The permitted electric current is 5-8% higher than that of Thoriated Tungsten Electrode. Its wear is the lowest and its durability of cathode is the longest.

Trade mark	Added impurity	Impurity quantity%	Other impurities %	Tungsten%	Electric discharged power	Color sign
WC20	CeO ₂	1.80-2.20	<0.20	The rest	2.7-2.8	Grey

The lanthanated tungsten became very popular in the circle of welding world because of its good welding performance. The electric conductivity of Lanthanated Tungsten is most closed to than of 2% Thoriated Tungsten. Welders can easily replace Thoriated Tungsten Electrode with Lanthanated tungsten Electrode at either AC or DC and not have to make any welding program changes. The radioactivity from Thoriated Tungsten can thus be avoided, and another advantage of Lanthanated Tungsten is being able to bear high current and having the lowest burn-loss rate.

Trade mark	Added impurity	Impurity quantity%	Other impurities %	Tungsten%	Electric discharged power	Color sign
WL10	La ₂ O ₃	0.8-1.2	< 0.20	The rest	2.6-2.7	Black
WL15	La ₂ O ₃	1.3-1.7	< 0.20	The rest	2.8-3.0	Golden Yellow
WL20	La ₂ O ₃	1.8-2.2	< 0.20	The rest	2.8-3.2	Sky blue

Zirconiated Tungsten has good performance when welding, especially under high load current. Zirconiated Tungsten electrodes can not be replaced by any other electrodes in terms of its excellent performance. The electrode retains a ball end when welding, which results in less tungsten permeation and good corrosion resistance.

Trade mark	Added impurity	Impurity quantity%	Other impurities %	Tungsten%	Electric discharged power	Color sign
WZ3	ZrO ₂	0.2-0.4	< 0.20	The rest	2.5-3.0	White
WZ8	ZrO ₂	0.7-0.9	< 0.20	The rest	2.5-3.0	White

Yttriated Tungsten Electrode: Mainly applied in military and aviation industry with narrow arc beam, high compressing strength, highest welding penetration at medium and high current;

Trade mark	Added impurity	Impurity quantity%	Other impurities	Tungsten%	Electric discharged power	Color sign
WY20	YO ₂	1.8-2.2	<0.20	The rest	2.0-3.9	Blue

Please refer to the following table when selecting your electrodes :

Diameter of Electrode		DC (A)		AC (A)	
In inch	Mm	Positive Contact (+)	Negative Contact (-)	Symmetry wave shape	Un-Symmetry wave shape
0.040	1.0	15 - 18		10 - 80	20 - 60
0.060	1.6	70 - 150	10 - 20	70 - 150	60 - 120
0.080	2.0	100 - 200	15 - 25	80 - 160	85 - 160
0.093	2.4	150 - 250	15 - 30	140 - 235	100 - 180
0.125	3.2	250 - 400	25 - 40	225 - 325	160 - 250
0.156	4.0	400 - 500	40 - 55	300 - 400	200 - 320
0.190	5.0	500 - 750	55 - 80	400 - 500	290 - 390
0.250	6.0	750 - 1000	80 - 125	500 - 630	340 - 525