

TYUE[®]

COMPANY CATALOG

Welding Electrodes & Wires



WENZHOU TIANYU ELECTRONIC CO., LTD.

About Us

Wenzhou Tianyu Electronic Co., Ltd.

Initially known as Wenzhou Yongshun Welding Materials Co., Ltd. was founded in 2000.

We have been engaged in the manufacturing of welding consumables for 22 years.

We have a first-class professional technical team that can provide customers with customized services for welding electrodes.

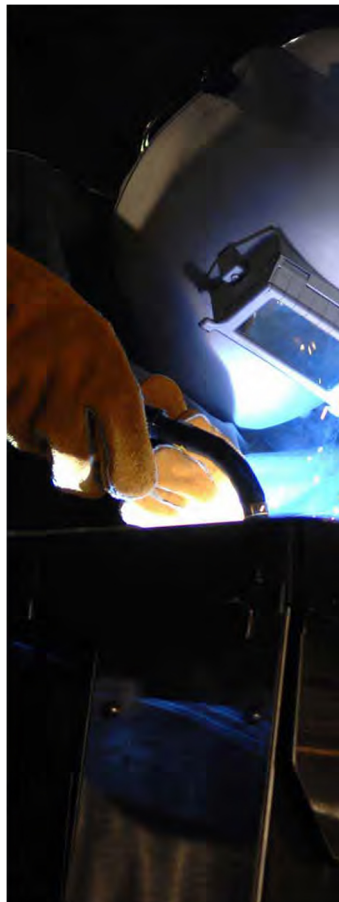
Our Product Range:

- ◆ Welding Electrodes
- ◆ Welding Wire / Rods
- ◆ Welding Consumables & Accessories & Tools

In 2018, we registered our own brand TYUE to promote the business of welding rods and welding consumables. After years of hard work, Tyue brand welding electrodes are popular among customers around the world and exported to more than 50 countries and regions including Europe, America, Africa, Southeast Asia, The Middle East, etc.

Our products are widely used in industry: mining machinery, shipbuilding industry, building construction, oil & gas industry, machinery & equipment manufacturing, bridge building, railway construction, pressure-bearing equipment, energy industry, etc.

We sincerely welcome customers all over the world to cooperate with us, and continuously enhance each other's value through cooperation.



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Product Name: Z308

符合: GB EZNi-1

相当: ENI-CI

说明: Z308是纯镍焊芯石墨型药皮的铸铁用焊条。该焊条采用国外先进技术, 药皮呈黑色微红, 交直流两用, 电弧稳定, 具有细小熔滴过渡, 熔渣覆盖均匀, 焊缝成形美观, 特别是小电流具有优良的操作工艺性能, 故可避免大电流焊接产生的不良影响。

用途: 用于薄铸件, 包括加工面和重要灰口铸件, 如汽缸盖、发动机座、齿轮箱以及机床轨等的焊补。

Description: Z308 products are pure nickel core wire graphite mould welding rods for use in cast iron pieces. These weld rods adopt foreign advanced techniques, have blush-black solder cover. The products can use either alternating current or direct current, have stably operating electric arc, very small droplet transfer, well-distributed molten slag cover and beautifully welded seam formation. Especially the small current welding has excellently processing property and can avoid harmful effects caused by projection welding.

Application: For use in soldering thin iron castings including their worked surface and important ferrous steel pieces such as cylinder cap, engine seat, gearbox and machine tool rams, etc.

熔敷金属化学成分(%) **Chemical composition of weld metal(%):**

碳(C)	锰(Mn)	硅(Si)	硫(S)	镍(Ni)	铁(Fe)	其他 Others
≤2.00	≤1.00	≤2.50	≤0.03	≥90	≤8	≤1.00

参考电流 **Recommended current:**

焊条直径(mm) Weld rod diameter	2.5	3.2	4.0
焊接电流(A) Welding current	60~90	90~110	120~150

- 注意事项:**
1. 可以通过锤击焊缝消除焊补区应力, 避免裂纹发生。
 2. 铸铁冷焊应避免使用大电流焊接, 以减少母材中杂质元素渗入焊缝并缩小白口区宽度, 提高焊缝抗裂性能和机加工能力。
 3. 施焊前焊条须经80~120°C烘焙1小时。

- Notes:**
1. The stress in soldering place may be eliminated by stamping the weld seams, so can prevent the crack happening.
 2. Cold welding cast iron pieces should avoid using heavy current, in order to lessen that impurity elements within masterbatch permeate the weld seam and reduce the width of weld heat-affected zone, enhance the sealing's crack resistance and improve bearable ability for mechanical working.
 3. Welding rods should be baked at 80-120°C for an hour before the start of weld operation.

Product Name: Z208

符合：GB E2C

说明： Z208是碳钢芯强石墨化药皮的铸铁用电焊条。焊缝在缓冷时变成灰口铸铁。其抗裂性能差。本焊条可以交直流两用。

用途： 用于修补灰口铸铁件的缺陷。

Description: Z208 products are carbon steel core wire welding electrodes with strong graphitizing solder cover and these products are useful for cast iron pieces. When the weld joints cooling down slowly they become ferrous steel. The weldments have less crack-resistance. These electrodes can use either alternating current or direct current.

Application: For use in patching the defects of ferrous steel pieces.

熔敷金属化学成分(%) **Chemical composition of weld metal(%):**

碳(C)	锰(Mn)	硅(Si)	硫(S)	磷(P)	铁(Fe)
2.00	≤0.75	2.50~6.50	≤0.10	≤0.50	余留 Remainder

参考电流 **Recommended current:**

焊条直径(mm) Weld rod diameter	3.2	4.0	5.0
焊接电流(A) Welding current	90~120	150~180	190~220

- 注意事项：**
1. 小型薄壁铸件钢度不大部位的缺陷，可以不预热焊补，而一般焊件需预热至400°C左右。焊后保温缓冷，则焊补处有可能进行切削加工。
 2. 对于承受应力及冲击等的重要铸件结构，不宜采用本焊条。
 3. 施焊前应将焊条在150°C左右烘焙1小时。

- Notes:**
1. The defects of less rigidity parts in small thin-wall cast iron pieces can be welded without preheating, but general weldments need to be preheated up to around 400°C. If the weldments preserve heat and slowly cool down, they are on the cards that the soldering joints can bear cut processing.
 2. These welding rods are not suitable for the important castings that bear the stress and impact, etc.
 3. The weld rods should be baked at around 150°C for an hour before the start of welding operation.

Product Name: Z508

符合: GB EZNiCu-1

相当: ENiCu-B

说明: Z508是镍铜合金(蒙乃尔)焊芯强还原性石墨型药皮焊条。其工艺性及切削加工性能都接近Z308。但由于收缩率较大,抗裂性能较差,焊接接头强度较低,故不宜用于受力部位的焊接,但可用于常温或低温预热(300°C左右)的灰口铸铁的焊接。交、直流两用,电弧稳定,操作方便。

用途: 用于强度要求不高的灰口铸铁件的焊补。

Description: Z508 products are konstantan (monel) core wire, strong reducibility graphite mould solder coating weld rods. Their processing property and machinability are approximate to Z308. Owing to the more contractibility rate, less crack resistance, lower strength of soldering points, these products are not suitable to soldering the bearing power positions, but can be used for welding ferrous pieces on the ordinary temperature or low temperature preheating (about 300°C) conditions. The weld rods can use either alternating current or direct current, have stable arc and conveniently operating.

Application: For use in soldering ferrous pieces that require less high strength.

熔敷金属化学成分(%) **Chemical composition of weld metal(%):**

碳(C)	锰(Mn)	硅(Si)	硫(S)	镍(Ni)	铁(Fe)	铜(Cu)	其他 Others
≤1.00	≤2.50	≤0.80	≤0.025	60~70	≤6	24~35	≤1.00

参考电流 **Recommended current:**

焊条直径(mm) Weld rod diameter	3.2	4.0	5.0
焊接电流(A) Welding current	90~110	120~150	160~190

注意事项:

1. 焊前焊条须经150°C左右烘焙1小时。
2. 焊接时运条以窄道为宜。每次焊缝的长度不宜超过50毫米,焊后立即用小锤击焊缝处,以消除焊补区应力,防止裂缝产生。

Notes:

1. The weld rods should be baked at about 150°C for an hour before the start of welding operation.
2. When welding operation carries on, the weld rod moving tracks take narrow routes as suitable line. The length of every welded seam should not be over 50mm. After soldering hammerblow the weld seam with small hammer immediately so as to eliminate the stress in soldering area and then avoid occurrence of cracks.

Product Name: Z408

符合: GB EZNiFe-1
相当: ENiFe-CI

说明: Z408是镍铁合金焊芯还原性石墨型药皮的铸铁用焊条。具有强度高、塑性好、线性膨胀系数低、熔渣覆盖优良、焊缝成形美观等特点。特别是小电流焊接具有优良的操作工艺性能，可避免大电流产生的不良影响。

用途: 用于重要高强度灰口铸铁及球墨铸铁件，如汽缸、发动机座、齿轮箱等的焊补。

Description: Z408 products are nickel iron alloy core wire, strong reducibility and graphite mould solder coating weld rods. These electrodes have characteristics of high strength, good plasticity, low linear expansion coefficient, fine slag cover and beautiful weld seam formation, etc. Especially the small current welding has excellently processing property and can avoid harmful effects caused by projection welding.

Application: For use in soldering important high strength ferrous steel and nodular cast iron pieces such as cylinder, engine seat and gearbox, etc.

熔敷金属化学成分(%) **Chemical composition of weld metal(%):**

碳(C)	锰(Mn)	硅(Si)	硫(S)	镍(Ni)	铁(Fe)	其他 Others
≤2.00	≤1.80	≤2.50	≤0.03	45~60	余留 Remainder	≤1.00

参考电流 **Recommended current:**

焊条直径(mm) Weld rod diameter	2.5	3.2	4.0	5.0
焊接电流(A) Welding current	50~80	80~100	110~140	150~180

注意事项: 1. 焊前焊条须经150°C左右烘焙1小时。
2. 尽可能采用小电流施焊。

Notes: 1. Welding rods should be baked at around 150°C for an hour before the start of weld operation.
2. The welding operation use small current as far as possible.

Product Name: Z308-16

符合: GB E308-16
相当: A101

说明: A101是钛型药皮Cr19Ni10不锈钢焊条。施焊时药皮具有不发红,不开裂的特点,焊缝金属具有良好的力学性能及抗晶间腐蚀性能,特别适宜于薄板平焊。

用途: 用于焊接工作温度低于300°C的耐腐蚀的Cr19Ni及0Cr19Ni11Ti的不锈钢结构。

Description: A101 is Cr19Ni10 stainless steel type electrode with Titanium coating. It has the character of non-crack and non-red-hot occurred while operating. Welding line contributes excellent mechanical performance as well as anti-intercrystalline corrosion performance.

Application: It is suitable for welding structure of anti-corrosion Cr19Ni9 and 0Cr19Ni11Ti stainless steel which working temperature is below 300°C.

熔敷金属化学成分(%) **Chemical composition of weld metal(%):**

碳(C)	锰(Mn)	硅(Si)	铬(Cr)	镍(Ni)	硫(S)	磷(P)	钼(Mo)	铜(Cu)
≤0.08	0.5~2.5	≤0.90	18~21	9~11	≤0.03	0.04	≤0.75	≤0.75

熔敷金属机械性能 **Mechanical properties of weld metal:**

试验项目 Test item	抗拉强度 Tensile strength Mpa	延伸率 Elongation %
保证值 Guaranteed	≥550	≥35

熔敷金属耐腐蚀性能试验及铁素体含量由供需双方协议确定。
The anti-corrosion performance and ferrite composition should be determined between buyer and seller.

参考电流 **Recommended current:**

焊条直径(mm) Weld rod diameter	2.0	2.5	3.2	4.0	5.0
焊接电流(A) Welding current	25~50	50~80	80~110	110~160	160~200

注意事项: 1. 焊前焊条须经250°C烘焙1h,不得反复烘焙。
2. 尽可能采用直流电源,因用交流焊接时,熔深较浅。

Notes: 1. Electrodes must be baked for 1 hour at 250°C before welding operation. Repeat bake process is not allowed.
2. To operate on DC if all possible, because of the penetration is not deep enough. Operate with small current so the electrode will not in red-hot.

Product Name: E308-16

符合: GB E308-16
相当: A102

- 说 明:** A102是钛钙型药皮的低碳Cr19Ni10不锈钢焊条。具有良好的力学性能及抗晶腐蚀性能,可交直流两用,操作性能极好。
- 用 途:** 用于焊接工作温度低于300°C的耐腐蚀的0Cr18Ni9、0Cr18Ni11Ti的不锈钢结构。

Description: A102 is low carbon Cr19Ni10 stainless steel type of electrode with Titanium-calcium coating. It provides excellent mechanical performance as well as anti-intercrystalline corrosion performance between. It can be operated on both AC and DC with outstanding operation performance.

Application: It is suitable for welding structure of anti-corrosion 0Cr18Ni9 and 0Cr18Ni11 Ti stainless steel, which working temperature is below 300°C.

熔敷金属化学成分(%) **Chemical composition of weld metal(%):**

碳(C)	锰(Mn)	硅(Si)	铬(Cr)	镍(Ni)	硫(S)	磷(P)	钼(Mo)	铜(Cu)
≤0.08	0.5~2.5	≤0.90	18~21	9~11	≤0.03	≤0.04	0.75	≤0.75

熔敷金属机械性能 **Mechanical properties of weld metal:**

试验项目 Test item	抗拉强度 Tensile strength Mpa	延伸率 Elongation %
保证值 Guaranteed	≥550	≥35

熔敷金属耐腐蚀性能试验及铁素体含量由供需双方协议确定。
The anti-corrosion performance and ferrite composition should be determined between buyer and seller.

参考电流 **Recommended current:**

焊条直径(mm) Weld rod diameter	2.0	2.5	3.2	4.0	5.0
焊接电流(A) Welding current	25~50	50~80	80~110	110~160	160~200

- 注意事项:**
1. 焊前焊条应经150°C烘焙1小时。
 2. 尽可能采用直流电源,因用交流焊接时,熔深较浅。电流不宜过大,以免焊条发红。

- Notes:**
1. Electrodes must be baked for 1 hour at 150°C before welding operation.
 2. To operate on DC if all possible, because of the penetration is not deep enough. Operate with small current so the electrode will not in red-hot.

Product Name: E316L-16

符合: GB E316L-16

相当: A022

说明: A022是钛钙型药皮的超低碳Cr18Ni12Mo2不锈钢焊条。熔敷金属含量 $\leq 0.04\%$,有良好的耐热、耐腐蚀及抗裂性能。可交直流两用,有良好的操作工艺性能。

用途: 用于焊接尿素、合成纤维等设备及相同类型的不锈钢结构,也可用于焊后不能进行热处理的铬不锈钢以及复合钢以及复合钢和异种钢等。

Description: A022 is a super- low carbon Cr19Ni10 stainless steel type electrode coated with Titanium-calcium. The molten metal content is $\leq 0.04\%$. It provides excellent performance of heat resistance, anti-corrosion as well as crack resistance. It has excellent operational technological performance and can be operated on both AC and DC.

Application: It suitable for stainless steel structures welding of the equipments for manufacturing carbamide, synthetic fibre as well as the other similar type of equipments. It also can be used to welding of chromium stainless steel that cannot be heat-treated after welding, and compound steel and special steel.

熔敷金属化学成分(%) Chemical composition of weld metal(%):

碳(C)	锰(Mn)	硅(Si)	铬(Cr)	镍(Ni)	硫(S)	磷(P)	钼(Mo)	铜(Cu)
≤ 0.04	0.5~2.5	≤ 0.90	17~20	11~14	≤ 0.03	≤ 0.04	2.0~3.0	≤ 0.75

熔敷金属机械性能 Mechanical properties of weld metal:

试验项目 Test item	抗拉强度 Tensile strength Mpa	延伸率 Elongation %
保证值 Guaranteed	≥ 490	≥ 30

参考电流 Recommended current:

焊条直径(mm) Weld rod diameter	2.0	2.5	3.2	4.0	5.0
焊接电流(A) Welding current	25~50	50~80	80~110	110~160	160~200

- 注意事项:**
1. 焊前焊条应经150°C烘焙1小时。
 2. 尽可能采用直流电源,因用交流焊接时,溶深较浅。电流不宜过大,以免焊条发红。
 3. 熔敷金属耐腐蚀性能试验由供需双方协商确定。

- Notes:**
1. Electrodes must be baked for 1 hour at 150°C before welding operation.
 2. To operate on DC if all possible, because of the penetration is not deep enough. Operate with small current so the electrode will not in red-hot.
 3. The anti-corrosion performance and ferrite composition should be determined between buyer and seller.

Product Name: E308L-16

符合: GB E308L-16
相当: A002

- 说明:** A002是钛钙型药皮的超低碳00Cr19Ni10不锈钢焊条。其熔敷金属含量 $\leq 0.04\%$,有良好的抗晶间腐蚀性能。可交直流两用,有良好的操作工艺性能。
- 用途:** 用于焊接超低碳00Cr19Ni10不锈钢结构。也可用于0Cr19Ni11Ti工作温度低于300°C耐腐蚀的不锈钢结构。主要用于全盛纤维、化肥、石油等设备的制造。

Description: A002 is a super-low carbon Cr19Ni10 stainless steel type electrode coated with Titanium-calcium. The molten metal content is $\leq 0.04\%$. It provides excellent performance of intercrystalline corrosion resistance. It has excellent operational technological performance on both AC and DC.

Application: It applies to welding the structure of super-low carbon Cr19Ni10 stainless steel. It also suitable for welding the structure of anti-corrosion stainless steel 0Cr19Ni11Ti which working temperature below 300°C. It is mainly used for equipment manufacturing of fibre, fertilizer and petroleum industry.

熔敷金属化学成分(%) **Chemical composition of weld metal(%):**

碳(C)	锰(Mn)	硅(Si)	铬(Cr)	镍(Ni)	硫(S)	磷(P)	钼(Mo)	铜(Cu)
≤ 0.04	0.5~2.5	≤ 0.90	$\leq 18\sim 21$	9~11	≤ 0.03	≤ 0.04	≤ 0.75	≤ 0.75

熔敷金属机械性能 **Mechanical properties of weld metal:**

试验项目 Test item	抗拉强度 Tensile strength Mpa	延伸率 Elongation %
保证值 Guaranteed	≥ 520	≥ 35

参考电流 **Recommended current:**

焊条直径(mm) Weld rod diameter	2.0	2.5	3.2	4.0	5.0
焊接电流(A) Welding current	25~50	50~80	80~110	110~160	160~200

- 注意事项:**
1. 焊前焊条应经150°C烘焙1小时。
 2. 尽可能采用直流电源, 电流不宜过大, 以免焊条发红。
 3. 熔敷金属耐腐蚀性能试验及铁素体含量由供需双方协商确定。

- Notes:**
1. Electrodes must be baked for 1 hour at 150°C before welding operation.
 2. To operate on DC if all possible. Operate with small current so the electrode will not in red-hot.
 3. The anti-corrosion performance and ferrite composition should be determined between buyer and seller.

Product Name: E309-16

符合：GB/T E309-16

相当：E309-16

说明： CJA302 是钛钙型药皮的Cr23Ni13不锈钢焊条。熔敷金属具有良好的抗裂及抗氧化性能。可交直流两用，有良好的焊接工艺性能。

用途： 用于焊接相同类型的不锈钢、不锈钢衬里、异种钢（Cr19Ni9同低碳钢）以及高铬钢、高锰钢等。

Description: E309-16 is Titanium calcium type stainless steel electrode. It can weld on both DC and AC with excellent weldability. It has good crack resistant properties and oxidation resistant properties.

Application: It is suitable for welding the same type stainless steel and the compound steel, high chrome steel high chromium steel etc.

熔敷金属化学成分(%) **Chemical composition of weld metal(%):**

碳(C)	锰(Mn)	硅(Si)	铬(Cr)	镍(Ni)	钼(Mo)	铜(Cu)	硫(S)	磷(P)
≤0.15	0.5~2.5	≤0.90	22~25	12~14	≤0.75	≤0.75	≤0.03	≤0.04

熔敷金属机械性能 **Mechanical properties of weld metal:**

试验项目 Test item	抗拉强度 Tensile strength Mpa	延伸率 Elongation %
保证值 Guaranteed	≥550	≥25

参考电流 **Recommended current:**

焊条直径(mm) Weld rod diameter	2.5	3.2	4.0	5.0
焊接电流(A) Welding current	50~80	80~110	110~160	160~200

Product Name: E7018

符合: GB E5018

相当: J506Fe

说明: J506Fe 是铁粉低氢钾型药皮的碳钢焊条, 交直流两用, 可进行全位置焊接。其特点是药皮含有铁粉, 可减少焊接层数。

用途: 适用于碳钢及低合金钢的焊接, 如16Mn等

Description: J506Fe is an iron powder low hydrogen potassium electrode. It is used on both AC and DC in all position. As the coating contains iron powder, it has highly efficient welding and can reduce welding layers.

Application: It is suitable for welding carbon structure and low alloy steel structure., such as 16 Mn etc.

熔敷金属化学成分(%) Chemical composition of weld metal(%):

碳(C)	锰(Mn)	硅(Si)	硫(S)	磷(P)
≤0.12	≤1.6	≤0.75	≤0.035	≤0.040

熔敷金属机械性能 Mechanical properties of weld metal:

试验项目 Test item	抗拉强度 Tensile strength Mpa	屈服强度 Yield strength Mpa	延伸率 Elongation %	冲击值 Impact value(J)
				-30°C
保证值 Guaranteed	≥490	≥400	≥22	≥27
一般结果 Tested	520~580	≥410	24~30	50~180

熔敷金属扩散氢含量: ≤8.0ml/100g(甘油法)

Hydrogen diffuse of weld metal: ≤8.0ml/100g(glyceric method)

X射线探伤: I级 X-ray radiographic inspection: I grade

参考电流 Recommended current:

焊条直径(mm) Weld rod diameter	2.5	3.2	4.0	5.0
焊条电流(A) Welding current	90~120	120~150	170~200	210~250

- 注意事项:**
1. 焊前焊条须经350°C左右烘焙1小时, 随烘随用。
 2. 焊前必须对焊件清除铁锈、油污、水分等杂质。
 3. 焊接时须用短弧操作, 以窄焊道为宜。
 4. 用直流电源时, 焊条接正极。

- Notes:**
1. Electrodes must be baked for 1 hour at 350°C before welding operation.
 2. It is essential to clean up rusty, oil scale, water and impurities on welding parts.
 3. Short arc operation is required when welding. Narrow welding track is proper.
 4. Electrode is as positive pole when operation on DC.

Product Name: E6013

符合: GB E4313

相当: J421

说明: J421是氧化钛型药皮的碳钢焊条, 交直流两用, 可进行全位置焊接, 操作性能良好, 再引弧容易。

用途: 焊接低碳钢结构, 特别适用于薄板小件及短焊缝和要求表面光洁的盖面焊。

Description: J421 is Carbon steel type electrode with Titanium Oxide coating. It is suitable for all-position welding along with the excellent welding performances and can be used both of AC and DC. The arc is stable and easy to re-strike.

Application: For welding various structures of low carbon steel, in particular applies to the applications of the welding of thin steel plate, small parts, short joints as well as the surface finish required welding.

熔敷金属化学成分(%) Chemical composition of weld metal(%):

碳(C)	锰(Mn)	硅(Si)	硫(S)	磷(P)
≈0.12	0.3~0.6	≤0.35	≤0.035	≤0.040

熔敷金属机械性能 Mechanical properties of weld metal:

试验项目 Test item	抗拉强度 Tensile strength Mpa	屈服强度 Yield strength Mpa	延伸率 Elongation %	冲击值 Impact value (J) 0°C
保证值 Guaranteed	≥420	≥330	≥22	≥47
一般结果 Tested	490	400	27	60

X射线探伤: II级 X-ray radiographic inspection: II grade

参考电流 Recommended current:

焊条直径(mm) Weld rod diameter	2.0	2.5	3.2	4.0	5.0
焊接电流(A) Welding current	35~60	55~95	90~140	140~200	190~240

Product Name: E6013

符合: GB E4313

相当: J421X

说明: J421X是氧化钛型药皮,立向下操作的专用碳钢焊条,交直流两用,可进行全位置焊接,操作性能良好,成形美观,脱渣好和再引弧容易。

用途: 适用于焊接一般船用碳钢及镀锌钢板,特别适用于薄板立向下焊及间断焊。

Description: J421X is Titanium Oxide coated electrode for carbon steel welding application. It operates in vertical-down position, and suitable for all-position welding along with the excellent welding performances and can be used both of AC and DC. The weld is smooth and neat. The arc is stable and easy to re-strike, slag can be easily removed.

Application: It applies to welding ship carbon steel and galvanized steel plate as well, in particular applies welding of thin plate in vertical-down position and, discontinuous welding application.

熔敷金属化学成分(%) Chemical composition of weld metal(%):

碳(C)	锰(Mn)	硅(Si)	硫(S)	磷(P)
≈0.08	≈0.5	≈0.25	≤0.035	≤0.040

熔敷金属机械性能 Mechanical properties of weld metal:

试验项目 Test item	抗拉强度 Tensile strength Mpa	屈服强度 Yield strength Mpa	延伸率 Elongation %	冲击值 Impact value(J)	
				常温 Normal Temp.	0°C
保证值 Guaranteed	≥420	≥330	≥17	-	-
一般结果 Tested	460~510	370~420	25	80	70

X射线探伤: II级 X-ray radiographic inspection: II grade

参考电流 Recommended current:

焊条直径(mm) Weld rod diameter	2.0	2.5	3.2	4.0	5.0
焊接电流(A) Welding current	35~70	600~100	80~150	160~200	180~250

Product Name: E7014

符合: GB E5014

相当: J501Fe

说明: J501Fe是铁粉氧化钛型药皮的碳钢焊条, 交直流两用, 熔敷效率为110%, 可进行全位置焊接。

用途: 用于碳钢和低合金钢, 如: 16Mn等船舶, 车辆及机械结构的焊接。

Description: J501Fe is Iron powder-Titanium oxide covered type electrode for welding of carbon steel. It operates on both AC and DC. It can be operated in all positions. The deposition efficiency is 110%.

Application: It is suitable for welding of carbon steel and low alloy steel, such as welding of 16Mn, and structures of ships, vehicles as well as mechanical.

熔敷金属化学成分(%) Chemical composition of weld metal(%):

碳(C)	锰(Mn)	硅(Si)	硫(S)	磷(P)
≤0.12	≤1.25	≤0.90	≤0.035	≤0.040

熔敷金属机械性能 Mechanical properties of weld metal:

试验项目 Test item	抗拉强度 Tensile strength Mpa	屈服强度 Yield strength Mpa	延伸率 Elongation %	冲击值 Impact value(J)
				-30°C
保证值 Guaranteed	≥490	≥400	≥17	≥27
一般结果 Tested	520~580	410	17~26	50~100

熔敷金属扩散氢含量: ≤8.0ml/100g(甘油法)

Hydrogen diffuse of weld metal: ≤8.0ml/100g(glyceric method)

X射线探伤: II级 X-ray radiographic inspection: II grade

参考电流 Recommended current:

焊条直径(mm) Weld rod diameter	2.0	2.5	3.2	4.0	5.0	5.8
焊条电流(A) Welding current	40~70	70~90	90~130	160~210	210~250	260~310

Product Name: J502

符合：GB E5003

说明： J502是氧化钛钙型药皮的碳钢焊条，交直流两用，可进行全位置焊接。

用途： 主要用于16Mn等低合金钢结构的焊接。

Description: J502 is Titanium oxide-calcium covered type carbon steel electrode. It can be operated on both AC and DC in all position welding.

Application: It mainly applies to structure welding of low carbon steel.

熔敷金属机械性能 **Mechanical properties of weld metal:**

试验项目 Test item	抗拉强度 Tensile strength Mpa	屈服强度 Yield strength Mpa	延伸率 Elongation %	冲击值 Impact value(J)
				0°C
保证值 Guaranteed	≥490	≥400	≥20	≥27
一般结果 Tested	520~580	≥410	20~30	60~100

X射线探伤：II级

X-ray radiographic inspection: II grade

参考电流 **Recommended current:**

焊条直径(mm) Weld rod diameter	2.0	2.5	3.2	4.0	5.0	5.8
焊条电流(A) Welding current	40~70	70~90	90~130	160~210	220~270	260~310

Product Name: E7015

符合: GB E5015

相当: J507

说明: J507是低氢钠型药皮的碳钢焊条, 采用直流反接。可进行全位置焊接, 具有良好的塑性、韧性及抗裂性能。

用途: 可焊接中碳钢和某些低合金钢, 如09Mn2Si、16Mn、09Mn2V等。

Description: J507 is Low-hydrogen sodium coated steel type electrode, provides excellent plasticity and toughness performances, as well as crack resistance performance. It can be operated in all position welding on DC reversed.

Application: It is suitable for welding of middle carbon steel and low alloy steel, such as 16Mn, 09Mn2Si, 09Mn2V etc.

熔敷金属化学成分(%) Chemical composition of weld metal(%):

碳(C)	锰(Mn)	硅(Si)	硫(S)	磷(P)
≤0.12	≤1.6	≤0.75	≤0.035	≤0.040

熔敷金属机械性能 Mechanical properties of weld metal:

试验项目 Test item	抗拉强度 Tensile strength Mpa	屈服强度 Yield strength Mpa	延伸率 Elongation %	冲击值 Impact value(J)
				-30°C
保证值 Guaranteed	≥490	≥400	≥22	≥27
一般结果 Tested	520~580	≥410	24~32	55~200

熔敷金属扩散氢含量: ≤8.0ml/100g(甘油法)

Hydrogen diffuse of weld metal: ≤8.0ml/100g(glyceric method)

X射线探伤: I级 X-ray radiographic inspection: I grade

参考电流 Recommended current:

焊条直径(mm) Weld rod diameter	2.5	3.2	4.0	5.0
焊条电流(A) Welding current	60~90	90~120	140~180	170~210

- 注意事项:**
1. 焊前焊条须经350°C左右烘焙1小时, 随烘随用。
 2. 焊前必须对焊件清除铁锈、油污、水分等杂质。
 3. 焊接时须用短弧操作, 以窄焊道为宜。

Notes:

1. Electrodes must be baked for 1 hour at 350°C before welding operation.
2. It is essential to clean up rusty, oil scale, water and impurities on welding parts.
3. Short arc operation is required when welding. Narrow welding track is proper.

Product Name: E6011

符合: GB E4311

相当: J425

说明: J425是纤维素钾型药皮的立向下焊专用碳钢焊条,交直流两用。向下立焊时成型美观,焊接效率高等特点。焊条摆动不宜过宽,电弧高低要适中。

用途: 适用于焊接薄板结构的对接、角接及搭接焊。如电站烟道、风道、变压器的油箱、船体和车辆外板的低碳钢结构。

Description: J425 is Cellulose potassium coated type electrode specialized in vertical-down welding of carbon steel. The weld in way of vertical-down is neat and smooth. It can be operated on both AC and DC. Less swing and proper level is required when welding.

Application: It applies to applications of butt welding, fillet welding well as rlap welding of thin steel plate. such as oil tank of transormer, vessel hull, vehicle crust low carbon steel structures for flue and venting tube.

熔敷金属化学成分(%) Chemical composition of weld metal(%):

碳(C)	锰(Mn)	硅(Si)	硫(S)	磷(P)
≤0.12	0.3~0.6	≤0.30	≤0.035	≤0.040

熔敷金属机械性能 Mechanical properties of weld metal:

试验项目 Test item	抗拉强度 Tensile strength Mpa	屈服强度 Yield strength Mpa	延伸率 Elongation %	冲击值 Impact value (J) 0°C
保证值 Guaranteed	≥420	≥330	≥22	≥27
一般结果 Tested	480~580	≥340	22~26	100~130

X射线探伤: II级 X-ray radiographic inspection: II grade

参考电流 Recommended current:

焊条直径(mm) Weld rod diameter	2.0	2.5	3.2	4.0	5.0
焊接电流(A) Welding current	25~40	30~50	70~100	90~140	150~200

Product Name: E7016

符合: GB E5016

相当: J506

说明: J506是低氢钾型药皮的碳钢焊条,具有良好的机械性能和抗裂性能,交直流两用,可进行全位置焊接。交流施焊时,在性能稳定性方面次于直流焊接。

用途: 用于中碳钢的低合金钢焊接,如16Mn, 09Mn2Si等。

Description: E506 is Low-hydrogen potassium coated carbon steel type electrode, provides excellent mechanical performances and crack resistance performance. It can be operated in all position welding and both of AC and DC. When operating on AC, its stability is next to DC welding.

Application: It is suitable for welding of middle carbon steel and low alloy steel, such as 165Mn, 09Mn2Si etc.

熔敷金属化学成分(%) Chemical composition of weld metal(%):

碳(C)	锰(Mn)	硅(Si)	硫(S)	磷(P)
≤0.12	≤1.6	≤0.75	≤0.035	≤0.040

熔敷金属机械性能 Mechanical properties of weld metal:

试验项目 Test item	抗拉强度 Tensile strength Mpa	屈服强度 Yield strength Mpa	延伸率 Elongation %	冲击值 Impact value(J)
				-30°C
保证值 Guaranteed	≥490	≥400	≥22	≥27
一般结果 Tested	520~580	≥410	25~33	55~205

熔敷金属扩散氢含量: ≤8.0ml/100g(甘油法)

Hydrogen diffuse of weld metal: ≤8.0ml/100g(glyceric method)

X射线探伤: I级 X-ray radiographic inspection: I grade

参考电流 Recommended current:

焊条直径(mm) Weld rod diameter	2.5	3.2	4.0	5.0
焊条电流(A) Welding current	60~90	90~130	150~190	180~230

注意事项: 1. 焊前焊条须经350°C左右烘焙1小时, 随烘随用。

2. 焊前必须对焊件清除铁锈、油污、水分等杂质。

3. 焊接时须用短弧操作, 以窄焊道为宜。

4. 用直流电源时, 焊条接正极。

Notes:

1. Electrodes must be baked for 1 hour at 350°C before welding operation.

2. It is essential to clean up rusty, oil scale, water and impurities on welding parts.

3. Short arc operation is required when welding. Narrow welding track is proper.

4. Electrode is as positive pole when operation on DC.

Product Name: D507

符合：GB/T EDCr-A1-15

相当：JIS DF-4A

说 明： D507是低氢钠型药皮的1Cr13型阀门堆焊焊条。堆焊金属为1Cr13半铁素体高铬钢。堆焊层具有空淬特性，一般不需要热处理。硬度均匀，可在750℃-800℃退火软化。当加热至900-1000℃空冷或油淬后，可重新硬化。采用直流反接。

用 途： 这是一种通用性的表面堆焊用焊条，用于堆焊工作温度在450℃以下的碳钢或合金钢的轴及阀门等。

熔敷金属化学成分(%) **Chemical composition of weld metal(%):**

碳(C)	铬(Cr)	硫(S)	磷(P)	其它元素总量
≤0.15	10-16	≤0.03	≤0.04	≤2.50

堆焊层硬度 HRC ≥ 40

参考电流 **Recommended current:**

焊条直径(mm) Weld rod diameter	3.2	4.0	5.0
焊接电流(A) Welding current	80~120	120~160	160~200

注意事项： 1. 焊前焊条须经过150℃左右烘焙1小时。

2. 焊前须将工件预热至300℃以上，焊后进行不同的热处理可获得相应的硬度。

Product Name: D608

符合：GB EDZ-AI-08

说明： D608是石墨型药皮的铬钼铸铁堆焊焊条。可交直流两用，但采用直流电源更为适宜。由于堆焊金属为铸铁组织的铬、钼碳化物，因此堆焊层具有较高的硬度和耐磨性。对泥沙及矿石的磨耗有良好的抵抗能力。

用途： 可用于农业机械、矿山设备等承受砂粒磨损与轻微冲击的零件。

Description: D608 is chrome-molybdenum cast iron type electrode with tungsten coating for deposited welding. It can be operated on both AC and DC, but operating on DC is better. Since the weld metal consists of Chrome-molybdenum carbide, so surfacing layer provided with more hardness and anti-abrasion ability. It has excellent anti-abrasion ability to sand and ore.

Application: It applies to surfacing welding parts of agriculture and mining machineries, and parts under light impacting working environment.

熔敷金属化学成分(%) **Chemical composition of weld metal(%):**

碳(C)	铬(Cr)	钼(Mo)
2.50~4.50	3.00~5.00	3.00~5.00

堆焊层硬度：HRC \geq 55

Hardness of surfacing weld layer: HRC \geq 55

参考电流 **Recommended current:**

焊条直径(mm) Weld rod diameter	3.2	4.0	5.0
焊接电流(A) Welding current	90~120	130~160	170~210

- 注意事项：**
1. 焊前焊条应经250°C左右烘焙1小时。
 2. 焊时焊件预热至400°C~500°C，或先用结507低氢焊条堆焊一层，再趁热堆焊，焊后缓冷。
 3. 堆焊层不能进行切削加工，只能磨加工。

- Notes:**
1. Electrodes must be baked for 1 hour at 250°C before welding operation.
 2. Before surface welding works, to heat the parts up to 400°C~500°C, or to pre-deposited welding by using of J507 low hydrogen electrode, then operate deposited welding and cooling down slowly.
 3. It is unable to machining the Deposited weld line, but grinding.

Other Welding electrodes

Category	Model	Type	GB Standard	AWS Standard	Dia(mm)	Mechanical Properties of Deposited Metal				Chemical Composition of Deposited Metal(wt%)								Specifications & Application Introduction		
						Yield strength(Mpa)	Tensile Strength(MPa)	Elongation %	Impact Value J/°C	C	Mn	Si	Cr	Ni	Mo	P	S		Others	
Weathering-resistant Steel	FRW-N16	J506CrNiCu	E5018-W	E7018-W1	2.6/3.2/4.0/5.0	485	575	28	183(-20)	1.580	0.20	1.69	0.250	0.320	-	0.007	0.005	Cu:0.01	applied to weld of weathering resistance 590Mpa high strength steel,like bridge construction and vehicle	
	FRW-S307	-	-	E307-16	-	650	37	-	0.090	5.05	0.60	18.500	8.500	0.800	0.020	0.009	-	all position 51Mn-Alloyed developed for steels difficult to weld such as armor plates and austenitic high Mn-steels,used as a buffer layer in hardfacing applications.		
	FRW-S307HM	-	-	-	-	610	43	-	0.082	5.28	0.40	19.500	9.690	0.080	0.020	0.009	-	non-austenite structure,applied to weld of millitary machine,like mine-sweeping and magnetic armored vehicle etc.		
	FRW-S308	A102	E308-16	E308-16	-	620	47	-	0.054	0.87	0.65	19.300	9.500	-	0.020	0.010	-	Applied to weld of steel contains 18Cr-8Ni etc good weldability and performance		
	FRW-S308H	-	E308H-16	E308H-16	-	620	44	-	0.060	0.94	0.57	19.200	9.500	-	0.028	0.012	-	Applied to weld of steel contains low carbon 18Cr-8Ni,better strength compared to E308		
	FRW-S308L	A202	E308L-16	E308L-16	2.6/3.2/4.0/5.0	585	45	-	0.033	0.91	0.65	19.200	9.600	-	0.025	0.010	-	Applied to weld of steel contains low carbon 18Cr-8Ni,obtain good ability of intergranular Corrosion Resistance		
	FRW-S308Z	A107	E308-15	E308-15	-	605	46	-	0.041	0.85	0.55	19.400	9.600	-	0.029	0.008	-	low hydrogen welding electrode,applied to weld of steel contains 18Cr-8Ni, good mechanical performance.		
	FRW-S309	A302	E309-16	E309-16	-	595	42	-	0.052	1.49	0.66	23.200	12.800	-	0.026	0.011	-	Applied to weld of steel contains 22Cr-12Ni and disimilar steel		
	FRW-S309L	A062	E309L-16	E309L-16	-	580	43	-	0.034	1.48	0.60	23.520	13.000	-	0.021	0.010	-	Applied to weld of low carbon 22Cr-12Ni and disimilar steel		
	FRW-S309LD	A062	E309L-16	E309L-16	3.2/4.0/5.0	580	43	-	0.034	1.38	0.60	23.000	12.800	-	0.021	0.010	-	Applied to weld of low carbon 22Cr-12Ni and disimilar steel,flat&flared, surfacing weld position support		
	FRW-S309Mo	A312	E309Mo-16	E309Mo-16	-	640	39	-	0.053	0.95	0.06	22.600	12.900	2.410	0.020	0.012	-	-	better performance of crack/corrosion resistance after plus chemical Mo based on 22Cr-12Ni,applied to weld of materials like A533B1.31 and disimilar steel	
	FRW-S309MoL	A042	E309LMo-16	E309LMo-16	-	620	40	-	0.034	0.97	0.70	22.600	12.900	2.500	0.020	0.009	-	-	lower carbon content obtain better performance of high temperature crack and corrosion resistance,applied to weld of disimilar steel	
	FRW-S309Z	A307	E309-15	E309-15	-	610	39	-	0.059	1.32	0.64	23.400	12.800	-	0.025	0.010	-	-	alkaline type electrode,good performance of mechanical,applied to weld of disimilar steel	
	FRW-S310	A402	E310-16	E310-16	-	590	40	-	0.097	1.90	0.34	26.200	21.700	-	0.015	0.010	-	-	non-austenite structure of deposited metal,good performance of corrosion & heat temperature resistant,applied to weld of steel contains 25Cr-20Ni and disimilar steel	
	FRW-S310Mo	A412	E310Mo-16	E310Mo-16	-	590	40	-	0.097	1.90	0.03	26.200	21.700	2.320	0.015	0.010	-	-	non-austenite structure of deposited metal,good performance of corrosion & heat resistance,applied to weld of stainless steel and disimilar steel	
	Stainless Steel	FRW-S310Z	A407	E310-15	E310-15	-	585	38	-	0.100	1.85	0.29	26.400	21.700	-	0.025	0.009	-	-	alkaline type electrode,applied to weld of heat resistance stainless steel and disimilar steel
		FRW-S316	A202	E316-15	E316-15	2.6/3.2/4.0/5.0	568	44	-	0.043	0.93	0.60	18.400	11.600	2.300	0.020	0.009	-	-	good performance of corrosion resistant,applied to weld of stainless steel of the chemical&engineering project
FRW-S316L		A022	E316-16	E316-16	-	566	42	-	0.025	0.94	0.66	18.600	11.400	2.530	0.016	0.010	-	-	good performance of corrosion resistance,applied to weld of low carbon steel contains 18Cr-12Ni-2Mo	
FRW-S316Z		A207	E316-15	E316-15	-	568	43	-	0.028	0.90	0.66	18.100	11.800	2.300	0.028	0.008	-	-	alkaline type electrode,applied to weld of stainless steel	
FRW-S317L		-	E317L-16	E317L-16	-	610	42	-	0.031	1.49	0.56	19.600	12.430	3.520	0.018	0.010	-	-	lower carbon content,good performance of corrosion resistance,applied to weld of all kinds of chemical tank	
FRW-S347		A132	E347-16	E347-16	-	625	40	-	0.042	0.86	0.77	19.420	9.380	-	0.028	0.008	Nb:0.52	-	good performance of intergranular corrosion,applied to weld of steel contains 18Cr-9Ni-1Ti	
FRW-S347L		A132	E347-16	E347-16	-	630	40	-	0.026	0.90	0.74	19.730	9.600	-	0.018	0.012	Nb:0.42	-	good performance of intergranular corrosion,applied to weld of steel contains 18Cr-9Ni-1Ti	
FRW-S347LD		A132	E347-16	E347-16	3.2/4.0/5.0	630	40	-	0.035	1.20	0.60	18.700	9.600	-	0.018	0.012	Nb:0.50	-	applied for weld of flat fillet and surfacing position welding	
FRW-S347Z		A137	E347-15	E347-15	-	648	43	-	0.031	0.90	0.56	19.400	9.400	-	0.026	0.014	-	-	alkaline type electrode,applied to weld of steel contains 18Cr-9Ni-1Ti	
Stainless Steel		FRW-S410NM	G202NM0	E410NM-16	E410NM-16	2.6/3.2/4.0/5.0	620°C x 1hr			0.030	0.16	0.27	11.500	4.710	0.480	0.023	0.006	Cu:0.05	-	good performance of weld deposit,applied to weld of steel contains 13Cr-14Ni-4Mo
	FRW-S2209	-	E2209-16	E2209-16	-	825	27	-	0.030	0.80	0.80	22.600	8.730	3.010	0.020	0.018	-	-	good performance of high strength and corrosion resistance,applied to weld of duplex stainless steel contains 22%Cr,like UNS S31803.	
	FRW-S70B	Ni357	ENi6133	ENiCrFe-2	-	610	35	-	0.080	1.90	0.40	14.200	68.000	2.400	0.009	0.008	-	-	applied to weld of LNG storage tank and steel contains 9Ni	
Nickel-based Alloy Steel	FRW-S70C	Ni307B	ENi6182	ENiCrFe-3	2.6/3.2/4.0	640	38	-	0.019	5.48	0.40	14.700	71.000	-	0.012	0.004	-	-	applied to weld of nickel base alloy which asked heat and corrosion resistance,like Inconel600/601,also to weld of disimilar steel	
	FRW-S10	-	ENi6625	ENiCrMo-3	-	775	38	-	0.070	0.78	0.32	20.800	59.600	8.900	0.002	0.004	-	-	applied to weld of Inconel625,9NiN steel and disimilar steel	

Other Welding electrodes

Category	Model	Type	GB Standard	AWS Standard	Dia(mm)	Mechanical Properties of Deposited Metal				Chemical Composition of Deposited Metal(wt%)									Specifications & Application Introduction																											
						Yield strength/MPa	Tensile Strength/MPa	Elongation %	Impact Value/ J/°C	C	Mn	Si	Cr	Ni	Mo	P	S	Others																												
Heat-resistant Steel	FRW-78A1	R106Fe	E5018-A1	E7018-A1	2.6/3.2/4.0/5.0	620°C x 1hr				0.080	0.78	0.54	-	-	0.560	0.012	0.013	-	490MPa strength low hydrogen iron powder welding electrode, to weld 0.5%Mo materials which asked welding temperature under 510°C																											
						490	575	27	-																																					
	FRW-307	R307	E515-B2	-		2.6/3.2/4.0/5.0	620°C x 1hr				0.072	0.70	0.30	1.250	-	0.490	0.019	0.009	-	Include 1.25Cr-0.5Mo, applied to weld of piping steel, like boiler pipes temperature<540°C, and steam pipe, pressure vessel temperature<520°C																										
							540	625	23	-																																				
	FRW-317	R317	E515-B2-V	-		2.6/3.2/4.0/5.0	730°C x 1hr				0.064	0.63	0.38	1.200	-	0.480	0.012	0.009	V:0.22	Include 1.25Cr-0.5Mo-V applied to weld of piping steel, like boiler pipes and chemical machinery and petro refined equipment etc. under 540°C temperature																										
							515	620	22	-																																				
FRW-407	R407	E6015-B3	E9015-B3	2.6/3.2/4.0/5.0	690°C x 1hr				0.076	0.65	0.43	2.350	-	1.090	0.012	0.009	-	Include 2.25Cr-1.0Mo, applied to weld of piping steel, like boiler pipes and chemical machinery and petro refined equipment etc. 2.25Cr-1Mo, under 550°C temperature																												
					550	650	21	-																																						
FRW-507	R507	ESMoV-15	E8015-B6	2.6/3.2/4.0/5.0	750°C x 4hr				0.070	0.70	0.36	4.940	-	0.570	0.015	0.009	-	applied to weld of Cr5Mo steel, like pipe of high temperature 400°C & weathering resistant																												
					-	635	26	-																																						
Heat-resistant Steel	FRW-96B9	-	-	E9016-B9	3.2/4.0/5.0	745°C x 3hr				0.094	0.58	0.20	9.530	0.700	0.900	0.008	0.005	V:0.20 N:0.035	applied to weld of Ti/P1 steel under 550-650°C, like steam pipe, superheated pipe etc.																											
	FRW-96B6	-	-	E9016-G		745°C x 3hr														0.100	0.70	0.25	9.100	0.600	0.500	0.010	0.010	V:0.187 W:1.80																		
						600	735	20	8(Normal Temp)																																					
FRW-96G	-	-	-	E9016-G	3.2/4.0/5.0	8(Normal Temp)				0.054	0.924	0.209	0.188	0.966	0.374	0.008	0.010	Cu:0.46	applied to weld of WB36 steel or 15NiCuMoNb in power station equipment																											
				555		625	23.5	95(-40)																																						
				535		625	24	45(-70)																																						
Low-temperature Steel	FRW-N1	W506Ni	E5518-G	E8018-G	2.6/3.2/4.0/5.0	95(-40)				0.094	1.14	0.38	-	1.600	-	0.012	0.010	-	applied to weld of 490MPa strength low temperature welding electrode, get excellent impact value under -50°C																											
	FRW-N18	W606Ni	E5518-G	E8018-G		68(-60)														0.048	0.89	0.15	0.010	0.050	-	0.016	0.007	490MPa iron powder low temperature welding electrode, get excellent impact value under -50°C																		
	FRW-N28	W706Ni	E5518-C1	E8018-C1		81(-60)																							0.089	1.06	0.32	-	2.170	-	0.017	0.010	iron powder low temperature welding electrode, applied to weld of low temperature aluminum super clear steel and 2.5% steel									
	FRW-N38	W906Ni	E5518-C2	E8018-C2		88(-73)																																0.065	0.73	0.43	-	3.200	-	0.016	0.009	iron powder low hydrogen welding electrode, applied to weld of LNG storage tank and steel contains 3.5%Ni
	FRW-N58	-	E5518-C3	E8018-C3		95(-40)																																								

Flux Cored Wire

Category	Model	Welding method/ Shielded Gas	GB Standard	AWS Standard	Dia(mm)	Mechanical Properties of Deposited Metal				Chemical Composition of Deposited Metal(wt%)									Specifications & Application Introduction																		
						Yield strength/MPa	Tensile Strength/MPa	Elongation %	Impact Value/ J/°C	C	Mn	Si	Cr	Ni	Mo	P	S	Others																			
Hard Facing Steel	FRW-420	FCAW/ CO ₂	-	-	1.2/1.4/1.6	-				0.3	1.2	0.6	13	-	-	-	-	-	applied to surfacing weld of continuous casting roll, steam engineering parts and valves																		
	FRW-423		-	-		-														0.1	1.3	0.4	13.7	2.6	1.25	-	-	V:0.15 Nb:0.20									
	FRW-424		-	-		-																							0.41	2.1	0.87	13.5	1.4	0.65	-	-	-
	FRW-D430		-	-		-																															

Flux Cored Wire



Category	Model	Welding method/ Shielded Gas	GB Standard	AWS Standard	Dia(mm)	Mechanical Properties of Deposited Metal				Chemical Composition of Deposited Metal(wt%)								Specifications & Application Introduction			
						Yield strength/MPa	Tensile Strength/MPa	Elongation %	Impact Value J/C	C	Mn	Si	Cr	Ni	Mo	P	S		Others		
Metal-cored Steel	FRW-80B2	FCAW/ 80%Ar+ 20%CO ₂	E55C-B2	E80C-B2	1.2	620°C x 1hr				0.055	0.73	0.43	1.3	-	0.52	0.014	0.008	-	applied to weld of steel contains 1.25Cr-0.5Mo,such as boiler pipe, high pressure vessel, petroleum refinery equipment under 520°C		
							525	610	21	38(10)											
							690°C x 1hr				0.055	0.84	0.41	2.3	-	1.07	0.012	0.009	-	applied to weld of steel contains 2.25Cr-1.5Mo,like pipe of high temperature apparatus,chemical machinery and petroleum cracking equipment under 550°C	
							575	690	20	/											
	FRW-90B3		E62C-B3	E90C-B3		595	645	24.5	43(50) 78(40)	0.052	1.26	0.346	-	1.67	0.32	0.013	0.009	-	62MPa high tensile strength steel mix-gas shielded metal-cored flux cored wire. Suitable for welding of engineering machinery, pressure vessel,shipbuilding,offshore platform etc.		
	FRW-90K3		E62C-K3H4	E90C-K3H4		635	720	21	45(-50)	0.056	1.69	0.41	0.24	2	0.48	0.018	0.013	-	62MPa high tensile strength steel mix-gas shielded metal-cored flux cored wire. Suitable for welding of engineering machinery, pressure vessel,shipbuilding,offshore platform etc.		
	FRW-100K3		E66C-K3H5	E100C-K3H4		750	840	17	34(-50)	0.061	1.83	0.52	0.21	2.1	0.42	0.014	0.009	-	75MPa high tensile strength steel mix-gas shielded metal-cored flux cored wire. Suitable for welding of engineering machinery, pressure vessel,shipbuilding,offshore platform etc.		
FRW-110K4		E76C-K4H6	E110C-K4H4		-	-	-	-	0.03	0.55	0.58	12.1	-	-	0.011	0.008	11.Tc.135	13Cr's ferritic stainless steel metal-cored flux cored wire. Recommended to the flat and flat fillet weld of single or multi pass weld, especially used in automobile exhaust pipe welding.			
FRW-409	FCAW/ 98%Ar+ 2%CO ₂	-	EC409		1.0*1.2	-	-	-	0.027	0.37	0.41	16.8	-	-	0.014	0.004	Nb:0.6	metal-cored stainless steel flux cored wire. Recommended to the flat and flat fillet weld of single or multi pass weld			
FRW-430Nb		-	-		-	-	-	-	0.025	0.74	0.64	12.2	4.3	0.46	0.016	0.009	-	metal-cored stainless steel flux cored wire. Recommended to the flat and flat fillet weld of single or multi pass weld			
FRW-410NiMo		-	EC410NiMo		-	-	-	-	-	0.025	0.74	0.64	12.2	4.3	0.46	0.016	0.009	-	metal-cored stainless steel flux cored wire. Recommended to the flat and flat fillet weld of single or multi pass weld		
FFW-308L	FCAW/ CO ₂	E308LT1-1	E308LT1-1	1.2/1.6	-	575	44	43(-40)	0.026	1.42	0.42	19.8	9.8	-	0.015	0.008	-	applied to weld of stainless steel contains Low Carbon18Cr-8Ni			
FFW-308H		E308HT1-1	E308HT1-1		-	600	41	47(-40)	0.053	1.21	0.55	18.7	9.6	-	0.012	0.009	-	applied to weld of stainless steel contains 18Cr-8Ni			
FFW-309L		E309LT1-1	E309LT1-1		-	600	42	48(-40)	0.029	1.58	0.49	24.5	12.8	-	0.013	0.009	-	applied to weld of stainless steel contains Low Carbon 22Cr-12Ni and dissimilar steel			
FFW-309MoL		E309LMoT1-1	E309LMoT1-1		-	700	34	43(-40)	0.028	1.36	0.48	24.5	13.2	2.35	0.016	0.009	-	applied to weld of stainless steel contains Low Carbon 22Cr-12Ni-2.5Mo and dissimilar steel			
FFW-316L		E316LT1-1	E316LT1-1		-	580	45	48(-40)	0.027	1.51	0.43	19.6	12.7	2.28	0.015	0.009	-	applied to weld of stainless steel contains Low Carbon 22Cr-12Ni-2.5Mo			
FFW-347L		E347LT1-1	E347LT1-1		-	583	39	55(-40)	0.033	1.46	0.58	19.2	10.4	-	0.016	0.008	Nb:0.55	applied to weld of stainless steel contains low carbon 18Cr-9Ni-Ti			
FFW-410		E410T1-1	E410T1-1		-	560	40	-	0.057	0.69	0.52	-	12.6	-	0.018	0.006	-	applied to weld of stainless steel contains 13Cr, such as valve and wear-resisting corrosion application,1Cr13			
FFW-D507		E410T1-1	E410T1-1		-	560	40	-	0.057	0.69	0.52	-	12.6	-	0.018	0.006	-	applied to weld of stainless steel contains 13Cr, such as valve and wear-resisting corrosion application,1Cr13			
FFW-2209		E2209T1-1/4	E2209T1-1/4		-	796	29	42(-40)	0.032	1.22	1.12	21.6	8.8	2.8	0.015	0.008	N:0.12	applied to weld of duplex stainless steel contains 22Cr,such as UNS S31803 (A192Y205)			
FFW-410NiMo		E410NiMoT1-1	E410NiMoT1-1		-	820	16	-	0.035	0.59	0.63	12.1	4.4	0.52	0.016	0.008	-	applied to weld of stainless steel contains 13Cr-NiMo,strength and hardness is higher than 410, for more demanding wear-resisting corrosion application area			
TGFA-308L	GTAW/ Ar	R308LT1-5	R308LT1-5	2.0*1000	-	-	-	-	0.027	1.41	0.62	20.5	10.6	-	0.022	0.008	-	applied to weld of stainless steel contains low carbon 18Cr-8Ni,no need Ar gas-shielded			
TGFA-309L		R309LT1-5	R309LT1-5		-	-	-	-	-	0.022	1.45	0.59	23.2	12.3	-	0.024	0.09	-	applied to weld of stainless steel contains low carbon 22Cr-12Ni and dissimilar steel,no need Ar gas-shielded		
TGFA-316L		R316LT1-5	R316LT1-5		-	-	-	-	-	0.027	1.35	0.52	18.5	12.2	2.3	0.023	0.007	-	applied to weld of stainless steel contains low carbon 18Cr-12Ni-2.5Mo, no need Ar gas-shielded		
TGFA-317L		R317LT1-5	R317LT1-5		-	-	-	-	-	0.025	1.43	0.57	18.7	12.3	3.5	0.023	0.008	-	applied to weld of stainless steel contains low carbon 18Cr-12Ni-3.5Mo, no need Ar gas-shielded		
TGFA-347L		R347LT1-5	R347LT1-5		-	-	-	-	-	0.024	1.53	0.59	19.2	10.2	-	0.024	0.006	Nb:0.63	applied to weld of stainless steel contains low carbon 18Cr-9Ni-Ti,no need Ar gas-shielded		
FRW-Z71GS		None required	E501T-GS		E71T-GS	0.8/0.9	-	510	-	-	-	-	-	-	-	-	-	-	-	applied for general-purpose use and welding in all position,specail for single-pass or multi-pass fillet and lap welds on thin-gauge mild or galvanized steel	
FRW-Z71	E501T-11		E71T-11	435	530		26	-	0.05	1.21	0.38	-	-	-	0.025	0.008	-	applied for general-purpose use and welding in all position,specail for single-passed and lap welds on thin-gauge mild or galvanized steel			
FRW-Z78	E501T-B		E71T-B	450	540		28	80(-30)	0.06	0.7	0.18	-	-	-	0.01	0.009	-	high deposition rates,for out-of-position welding,good mechanical properties, applied to structural fabrication,heavy equipment repairs,ship and barge fabrication			
FRW-Z71Ni	E501T8-K6		E71T8-K6	430	550		29	130(-30)	0.039	1.19	0.39	-	0.92	-	0.016	0.008	A1:0.82	high deposition rates,all position weld, single-pass & multi-pass application,applied for A70 grade pipe			
Hard Facing Steel	FRW-D225	FCAW/ 80%Ar+ 20%CO ₂	-	-	1.2/1.4/1.6	Hardness	HRC33-57	0.45	0.8	0.5	6	-	1.2	-	-	-	V:0.60 W:3.00	applied to surfacing and repair weld of hot roll and other wear-resistant parts			
	FRW-D320		-	-			HRC-40	0.15	1.15	0.28	13.2	2.85	0.62	-	-	-	V:0.50 Nb:0.29	applied to surfacing weld of steel roll,hot roll,continuous casting roll,crane roll and surfac of blast furnace			
	FRW-D410		-	-			HRC-48	0.08	0.5	0.3	13.2	-	-	-	-	-	-	-	applied to surfacing welds of continuous casting roll,steam engineering parts, centrifugal pump vane,and valves		
	FRW-D414N		-	-			HRC44-50	0.05	1	0.6	13.5	4.3	1.05	-	-	-	-	-	-	applied to surfacing weld of continuous casting roll	
			-	-			-	HRC33												N:0.11	applied to surfacing weld of continuous casting roll

Flux Cored Wire



Category	Model	Welding method/ Shielded Gas	GB Standard	AWS Standard	Dia(mm)	Mechanical Properties of Deposited Metal				Chemical Composition of Deposited Metal(wt%)								Specifications & Application Introduction																																
						Yield strength/MPa	Tensile Strength/MPa	Elongation/1%	Impact Value/ J(°C)	C	Mn	Si	Cr	Ni	Mo	P	S		Others																															
Carbon and High Tensile Steel	FRW-501	FCAW/ CO ₂	E501T-1	E71T-1C	1.2/1.4/1.6	460	560	27	126(-20)	0.042	1.12	0.31	-	-	-	0.013	0.008	-	typical application: shipbuilding, offshore, bridge, pressure vessel, and general fabrication.																															
	FRW-712		E501T-1	E71T-1C	1.2/1.4/1.6	450	550	28	138(-20)	0.048	1.23	0.42	-	-	-	0.012	0.009	-	applied to weld of 490MPa mild steel and high tensile strength steel like shipbuilding construction etc.																															
	FRW-71		E501T-1	E71T-1C	1.2/1.4/1.6	440	530	31	160(-20)	0.038	1.34	0.38	-	-	-	0.011	0.008	-	good performance of crack resistance low defect ratio, good weldability, suggested using in significant construction and strict anti-cracking occasion																															
	FRW-70C		E500T-1	E70T-1C	1.2/1.4/1.6	480	550	27	110(-20)	0.032	1.56	0.41	-	0.36	-	-	0.012	0.006	-	metal power Steel, excellent hollow resistant, suitable for high efficiency flat/roll/vertical welding.																														
	FRW-501M	FCAW/ 75-80%Ar+ 20-25%CO ₂	E501T-1M	E71T-1M	1.2/1.4/1.6	460	560	28	120(-20)	0.033	1.06	0.35	-	-	-	0.012	0.006	-	mixed-gas shielded, typical application: shipbuilding, offshore, bridge, pressure vessel, and general fabrication.																															
	FRW-71M		E501T-1M	E71T-1M	1.2/1.4/1.6	440	540	30	132(-20)	0.033	1.06	0.35	-	-	-	0.012	0.006	-	mixed-gas shielded, typical application: shipbuilding, offshore, bridge, pressure vessel, and general fabrication.																															
	FRW-71Ni	FCAW/ CO ₂	E501T-1L	E71T-1CJ	1.2/1.4/1.6	480	560	28	116(-40)	0.035	1.42	0.41	-	0.39	-	-	0.011	0.007	-	good penetration, excellent low temperature impact value, suitable for the welding of ship hull, offshore project																														
	FRW-100K3		E690T1-K3J	E100T1-K3CJ	1.2	650	750	19	72(-20)	0.045	1.32	0.42	0.03	1.58	0.38	0.012	0.007	-	applied to weld of high tensile strength steels such as ASTM A514, Q690, HY80, HSLA80																															
	FRW-110K3	FCAW/ CO ₂	E760T1-K3J	E110T1-K3CJ	1.2	735	820	18	51(-20)	0.041	1.58	0.34	0.03	2.21	0.51	0.012	0.007	-	applied to weld of high tensile strength steels such as ASTM A514, Q690, HY80, HSLA80																															
	FRW-71NM		E501T-1LM	E71T-1CJM	1.2/1.4/1.6	480	560	28	116(-40)	0.035	1.42	0.41	-	0.39	-	0.011	0.007	-	mixed-gas shielded, good penetration, excellent low temperature impact value, suitable for the welding of ship hull, offshore project																															
FRW-100K3M	FCAW/ 75-80%Ar+ 20-25%CO ₂	E690T1-K3M	E100T1-K3CM	1.2	650	750	19	72(-20)	0.045	1.32	0.42	0.03	1.58	0.38	0.012	0.007	-	applied to weld of high tensile steels such as ASTM A514, Q690, HY80, HSLA80M																																
FRW-110K3M		E760T1-K3M	E110T1-K3CM	1.2	735	820	18	51(-20)	0.041	1.58	0.34	0.03	2.21	0.51	0.012	0.007	-	applied to weld of high tensile steels such as ASTM A514, Q690, HY80, HSLA80M																																
Heat-resistant Steel	FRW-81B2	FCAW/ CO ₂	E551T1-B2C	E81T1-B2C	1.2	690°C x 1hr			0.06	0.98	0.39	1.27	-	0.52	0.014	0.008	-	-	applied to weld of steel contains 1.25Cr-0.5Mo, like boiler pipe, pressure vessel, petroleum refinery equipment under 520°C																															
	FRW-91B3		E62T1-B3C	E91T1-B3C		690°C x 1hr													0.06	0.84	0.4	2.32	-	1.09	0.019	0.009	-	applied to weld of steel contains 2.25Cr-1%Mo, like pipe of high temperature pressure, chemical machinery and petroleum cracking equipment under 500°C																						
	FRW-81B2M	FCAW/ 75-80%Ar+ 20-25%CO ₂	E551T1-B2M	E81T1-B2M	1.2	690°C x 1hr			0.065	0.8	0.3	1.32	-	0.52	0.014	0.008	-	-	mixed-gas shielded, all position weld, applied to weld of Cr-Mo pipe and creep resistance Cr-Mo steel																															
	FRW-81B2VM		E551T-GM	E81T1-GM		730°C x 2hr													0.064	0.87	0.32	1.25	-	0.55	0.014	0.011	V:0.25	mixed-gas shielded, all position weld, applied to weld of steel contains 1.25Cr-0.5%Mo, like pipe of high temperature pressure, chemical machinery and petroleum cracking equipment.																						
	FRW-91B3M	FCAW/ CO ₂	E62T1-B3M	E91T1-B3M	1.2	690°C x 1hr			0.06	0.84	0.4	2.21	-	1.06	0.019	0.009	-	-	mixed-gas shielded, all position weld, applied to weld of Cr-Mo pipe and creep resistance Cr-Mo steel																															
	FRW-71G		E501T1-GC	E71T1-GC		690°C x 1hr													0.035	1.15	0.22	0.03	0.89	0.01	0.011	0.008	-	applied to weld of low temperature service vessels, ocean engineering structures.																						
Low-temperature Steel	FRW-81N1	FCAW/ CO ₂	E551T1-N1CJ	E81T1-N1CJ	1.2	530 600 25			0.03	1.36	0.31	-	1.01	-	0.015	0.011	-	-	suitable for all position wetting, good impact value, apply to weld of 590 MPa grade high strength steel, such as bridge, steel structure, machinery, storage tank and pipeline welding.																															
	FRW-81N2		E551T1-N2C	E81T1-N2C		550 630 24													0.033	1.03	0.37	-	2.41	-	0.016	0.012	-	-	good welding performance, apply to weld of 590MPa high tensile strength steel, such as structural steel, shipbuilding, railway vehicles, construction equipment and pipe welding.																					
	FRW-81K2		E551T1-K2CJ	E81T1-K2CJ		520 590 26																							0.033	1.14	0.31	-	1.54	-	0.009	0.008	-	-	applied to weld of offshore platform structure under low temperature area operations, like LNG & LPG storage tank											
	FRW-91K2		E62T1-K2CJ	E91T1-K2CJ		600 700 23																																	0.045	1.51	0.32	-	1.51	0.13	0.01	0.009	-	-	620MPa tensile strength steel, apply to weld of 590MPa high tensile strength steel, such as structural steel, shipbuilding, railway vehicles, construction equipment and pipe welding.	
	FRW-91N2		E62T1-N2C	E91T1-N2C		600 680 23																																											0.05	1.1
FRW-81W2	E551T1-W2CJ	E81T1-W2CJ	630 680 21			0.04	1.15	0.57	0.59	0.53	-	0.013	0.01	Cu:0.38	-	-	deposited metal containing Cu, Cr, Ni, good weathering resistance, suitable for wetting typical weathering steel, as ASTM A242, A588																																	
FRW-70	ER50-6H4	E70C-6MH4	465 565 27.5														0.043	1.54	0.53	-	-	0.013	0.009	-	-	-	-	mixed-gas shielded metal-cored flux cored wire, apply to flat wetting or full fillet wetting, high efficiency, excellent penetration and outstanding welding machinery adaptability, take the advantage of high efficiency and low spatter rate in use of high speed automatic line.																						
FRW-60C	E55C-G	E80C-G	595 650 21																									0.048	1.48	0.445	-	-	0.25	0.012	0.007	-	-	-												
FRW-60A1	E551T1-A1C	E81T1-A1C	545 615 26.5																																				0.038	0.928	0.384	-	-	0.52	0.012	0.008	-	-		
FRW-80G	E55C-G	E80C-G	550 630 23.5																																														0.046	1.48

Category	Model	Welding method/ Shielded Gas	GB Standard	AWS Standard	Dia.(mm)	Mechanical Properties of Deposited Metal				Chemical Composition of Deposited Metal(wt%)								Specifications & Application Introduction		
						Yield strength Mpa	Tensile Strength Mpa	Elongation %	Impact Value J/°C	C	Mn	Si	Cr	Ni	Mo	P	S		Others	
Carbon and High Tensile Steel	TIG-50	FCAW/ Ar	ER50-G	ER70S-G	1.6/2.0/2.4/3.2	465	560	28	254(-30)	0.060	1.40	0.60	-	-	-	0.015	0.012	0.012	Applied to weld of 430Mpa mild steel and high tensile strength steel like shipbuilding, petroleum, chemical industries, nuclear power station etc.	
			ER50-6	ER70S-6		465	560	28	264(-30)	0.070	1.43	0.85	0.010	0.003	0.001	0.010	0.010	0.010		
	TIG-52	ER50-2	ER70S-2	470		50	27	210(-30)	0.040	1.21	0.56	0.015	0.003	-	0.010	0.008	0.010	0.010	Applied to weld of 430Mpa mild steel and high tensile strength steel like shipbuilding, chemical oil industries	
	FM-56	FCAW/ CO ₂	ER50-6	ER70S-6		0.8/0.9/1.0/1.2	460	50	28	84(-30)	0.083	1.53	0.87	-	-	-	0.013	0.012	-	All position welding, suitable for widely range welding current, stable arc under low current, less spatter, good bead appearance
Low-alloyed Steel	FM-58	FCAW/ CO ₂	ER50-G	ER70S-G	1.0/1.2	485	570	27	96(-30) 74(-40)	0.082	1.42	0.73	-	-	-	0.014	0.010	Ti 0.10	good weldability like less fume after plus chemical composition Ti	
	FM-60	FCAW/ CO ₂	ER55-D2-Ti	ER80S-G	1.0/1.2	540	600	26	70(-30)	0.081	1.44	0.61	-	-	0.370	0.023	0.010	-	Applied to weld of 540Mpa high tensile strength steel	
Low-temperature Steel	TIG-80Ni1	FCAW/ Ar	ER55-C1	ER81S-Ni1	1.6/2.0/2.4	525	617	27	105(-45)	0.072	1.15	0.61	0.030	0.890	0.280	0.012	0.005	Cu 0.21	Low temperature TIG wire, got good impact value under -45°C after plus the chemical composition Ni	
Heat-resistant Steel	TIG-1CM	GTAW/ Ar	ER55-B2	ER80S-B2	1.2/1.6/2.0/2.4	620°C x 1h			0.072	0.67	0.61	1.300	-	0.510	0.010	0.010	Cu 0.16	Applied to weld of steel contains 1-1.25%Cr-0.5%Mo, like boiler pipe, pressure vessel, petroleum refinery equipment under 520°C, and also applied to weld of 300(MnSi) steel		
	TIG-2CM		ER62-B3	ER90S-B3		690°C x 1h			0.077	0.71	0.69	2.450	-	1.100	0.010	0.010	Cu 0.17	Applied to weld of steel contains 2.25%Cr-1%Mo, like pipe of high temperature & pressure, chemical machinery and petroleum cracking equipment under 520°C		
	TIG-1CMV	DL7869 TIG-31	ER80S-G	690°C x 1h			0.072	0.67	0.61	1.300	-	0.510	0.010	0.010	V 0.22 Cu 0.16	Applied to weld of steel contains 1-1.25%Cr-0.5%Mo-V, like boiler pipe, high pressure vessel, petroleum refinery equipment under 520°C				
	Heat-resistant Steel	TIG-9Cb	GTAW/ Ar	-		ER90S-B9	2.0/2.4	760°C x 2hr			0.090	0.63	0.25	8.800	-	0.950	0.007	0.002	V 0.20 Nb 0.06 Cu 0.03 N 0.05	Applied to weld of steel contains 9%Cr-1%Mo-Nb-V, deposited metal obtains good high temperature creep resistance, like T/P91 of power station, petrochemical industrial
MIG-1CM		GTAW/ Ar+1-5%O ₂	ER55-B2	ER80S-B2	1.0/1.2	690°C x 1hr			0.072	0.67	0.61	1.300	-	0.510	0.010	0.010	Cu 0.16	Applied to weld of steel contains 1-1.25%Cr-0.5%Mo, like boiler pipe, pressure vessel, petroleum refinery equipment under 520°C, and also applied to weld of 300(MnSi) steel		
MIG-1CM			ER55-G	ER80S-G		620°C x 1hr			0.081	1.08	0.53	1.350	-	0.534	0.013	0.003	-	same application area as ER55-B2, but better performance than ER55-B2		
MIG-2CM			ER62-B3	ER90S-B3		690°C x 1hr			0.077	0.71	0.69	2.450	-	1.100	0.010	0.010	Cu 0.17	Applied to weld of steel contains 2.25%Cr-1%Mo, like pipe of high temperature & pressure, synthetic chemistry machinery and petroleum cracking equipment under 550°C		
MIG-2CM	ER62-G		ER90S-G	690°C x 1hr			0.077	0.71	0.69	2.450	-	1.100	0.010	0.010	Cu 0.17	same application area as ER62-B3, but better performance than ER62-B3				
Stainless Steel	TIG-308	GTAW/ Ar	H08Cr21Ni10Si	ER308	1.2/1.6/2.0/2.4/3.2	-	610	41	-	0.04	0.34	1.82	20.15	9.5	-	-	-	Applied to weld of stainless steel contains 18Cr-8Ni(304 or 304L), stable arc, good bead, better cracking performance		
	TIG-308L		H03Cr21Ni10Si	ER308L		-	580	42	-	0.019	0.41	1.75	20.5	9.7	-	-	-	-	Applied to weld of SS contains 00Cr19Ni10, carbon chemical composition <0.03%, better performance of resistance to intergranular corrosion	
	TIG-308Si		H08Cr21Ni10Si	ER308Si		-	615	40	-	0.055	0.67	1.80	19.8	9.7	-	-	-	-	better weldability and deposited metal fluidity than FRW-308	
	TIG-308LSi		H03Cr21Ni10Si	ER308LSi		-	590	41	-	0.02	0.78	2.25	19.8	10.5	-	-	-	-	better weldability and deposited metal fluidity than FRW-308L	
	TIG-309		H12Cr24Ni13Si	ER309		-	610	40	-	0.063	0.42	1.63	23.8	13.2	-	-	-	-	Applied to weld of dissimilar steel like mild steel and CrMo steel, something like SUS309S, SC317, better performance of heat resistance and corrosion resistance	
	TIG-309L		H03Cr24Ni13Si	ER309L		-	590	41	-	0.023	0.39	1.96	23.9	12.9	-	-	-	-	-	carbon chemical composition <0.03%, better performance of resistance to intergranular corrosion when without chemical composition of Nb, Ti
	TIG-309Mo		H12Cr24Ni13Mo2	ER309Mo		-	620	42	-	0.09	0.46	1.82	23.8	13.1	2.54	-	-	-	-	better performance of tensile strength & crack & corrosion resistance under high temperature after plus chemical composition Mo when compared to FRW-309/309L, carbon chemical composition <0.03%, better performance of resistance to intergranular corrosion
	TIG-309MoL		H03Cr24Ni13Mo2	ER309MoL		-	610	42	-	0.024	0.42	1.78	23.9	13	2.49	-	-	-	-	better performance of resistance to intergranular corrosion
	TIG-309Si		H12Cr24Ni13Si	ER309Si		-	610	38	-	0.065	0.72	2.26	23.8	13.5	-	-	-	-	-	better weldability and deposited metal fluidity than FRW-309
	TIG-309LSi		H03Cr24Ni13Si	ER309LSi		-	600	38	-	0.024	0.74	2.35	23.9	13.8	-	-	-	-	-	better weldability and deposited metal fluidity than FRW-309L

Category	Model	Welding method/ Shielded Gas	GB Standard	AWS Standard	Dia.(mm)	Mechanical Properties of Deposited Metal				Chemical Composition of Deposited Metal(wt%)								Specifications & Application Introduction		
						Yield strength(Mpa)	Tensile Strength(MPa)	Elongation%	Impact Value J/C	C	Mn	Si	Cr	Ni	Mo	P	S		Others	
Stainless Steel	TIG-310	GTAW/ Ar	H12C20Ni21Si	ER310	2.0/2.4	-	610	41	-	0.09	0.40	2.01	2.74	2.18	-	-	-	-	deposited metal contains 25Cr-20Ni, applied to weld of 310S stainless steel	
	TIG-316		H0Cr19Ni12Mo2S	ER316	1.2/1.6/2.0/2.4/3.2	-	560	38	-	0.05	0.36	1.78	19.6	12.5	2.50	-	-	-	deposited metal contains 18Cr-12Ni-2Mo(316or316L), stable arc, good bead & crack resistance	
	TIG-316L		H0Cr19Ni12Mo2S	ER316L		-	560	40	-	0.025	0.46	1.90	19.1	12.6	2.6	-	-	-	carbon chemical composition<0.04%, better performance of resistance to intergranular corrosion	
	TIG-316FSi		H0Cr19Ni12Mo2Si	ER316Si	2.0/2.4	-	580	39	-	0.023	0.74	1.60	19	12.4	2.3	-	-	-	better weldability and deposited metal fluidity than FRW-316	
	TIG-316LSi		H0Cr19Ni12Mo2Si	ER316LSi		-	570	39	-	0.02	0.70	1.60	19.3	12.4	2.3	-	-	-	better weldability and deposited metal fluidity than FRW-316L	
	TIG-317L		H03C19Ni14Mo3	ER317L	2.0/2.4	-	570	42	-	0.024	0.40	1.76	19.6	13.7	3.6	-	-	-	super low carbon and high Mo chemical composition, avoid of intergranular corrosion, without heat treatment, especially for acid & alkali resistance, sulfuric acid, organic acid	
	TIG-347		H06Cr20Ni10Nb	ER347	1.6/2.0/2.4/3.2	-	630	41	-	0.04	0.41	1.61	20.4	9.9	-	-	-	Nb:0.8	applied to weld of heat resistance steel, better corrosion resistance of weld bead after plus the chemical composition Nb	
	TIG-347L		H03Cr20Ni10Nb	ER347L		-	610	42	-	0.027	0.43	1.58	20.5	9.7	-	-	-	Nb:0.5	super low carbon chemical composition, applied to weld of heat resistance steel, better corrosion resistance of weld bead after plus the chemical composition Nb	
	TIG-2209		H03Cr22Ni6Mo3N	ER2209	2.0/2.4	-	750	25	-	0.012	0.44	1.67	22.6	8.37	3.21	-	-	-	Nb:0.15 Cu:0.16	applied to weld of Duplex SS contains 22%Cr, like UNS S31803/Alloy 2009
	MIG-307Si		-	ER307Si	1.0/1.2	-	630	40	-	0.08	0.95	6.45	18.7	8.2	0.16	-	-	-	-	deposited metal contains 18Cr-8Ni-8Mn, suitable high composition of Mn, easy to crack, applied to nonmagnetic steel, high manganese steel and corrosion-resistant steel
	MIG-308		H08Cr21Ni10Si	ER308	-	590	40	-	0.04	0.51	1.82	19.4	10.7	0.09	-	-	-	-	-	applied to weld of SS contains 18Cr-8Ni(304or304L), stable arc, good bead appearance, better cracking performance
	MIG-308L		H03Cr21Ni10Si	ER308L	-	610	42	-	0.019	0.55	1.80	19.8	10.7	0.09	-	-	-	-	-	carbon chemical composition<0.04%, better performance of resistance to intergranular corrosion, applied to weld of SS contains super low carbon 00Cr19Ni10
	MIG-308LSi		H03Cr21Ni10Si	ER308LSi	-	610	41	-	0.022	0.73	1.84	19.8	10.4	0.09	-	-	-	-	-	better weldability and deposited metal fluidity than FRW-308L
	MIG-309		H12Cr24Ni13Si	ER309	-	610	40	-	0.063	0.43	1.76	23.3	13.6	0.07	-	-	-	-	-	applied to weld of dissimilar steel, like mild steel and CrMo steel like SUS309S, SCS17, better performance of heat resistance and corrosion resistance, stable arc etc
	MIG-309L		H03Cr24Ni13Si	ER309L	-	590	35	-	0.023	0.46	1.60	23.1	13.8	0.06	-	-	-	-	-	carbon chemical composition<0.04%, better performance of resistance to intergranular corrosion when without chemical composition of Nb, Ti
	MIG-309Mo		H12Cr24Ni13Mo2	ER309Mo	-	630	41	-	0.076	0.47	1.51	23.3	13.2	2.65	-	-	-	-	-	better performance of tensile strength & crack & corrosion resistance under high temperature after plus chemical composition Mo when compared to FRW-309/309L
	MIG-309MoL		H03Cr24Ni13Mo2	ER309MoL	0.8/1.0/1.2	-	620	42	-	0.024	0.45	1.43	23.1	13	2.7	-	-	-	-	carbon chemical composition<0.04%, better performance of resistance to intergranular corrosion
	MIG-309LSi		H03Cr19Ni13Si	ER310LSi	-	630	31	-	0.024	0.92	1.90	23.2	13.6	0.1	-	-	-	-	-	better weldability and deposited metal fluidity than FRW-309L
	MIG-310		H12Cr20Ni21Si	ER310	-	610	41	-	0.11	0.36	1.57	26.8	20.8	0.06	-	-	-	-	-	deposited metal contains 25Cr-20Ni, applied to weld of 310S stainless steel
	MIG-316		H0Cr19Ni12Mo2S	ER316	-	610	38	-	0.05	0.54	1.81	18.3	11.6	2.04	-	-	-	-	-	applied to weld of SS contains 18Cr-12Ni-2Mo(316or316L), stable arc, good bead & crack resistance
	MIG-316L		H0Cr19Ni12Mo2S	ER316L	-	590	39	-	0.01	0.52	1.60	19.1	12.5	2.4	-	-	-	-	-	carbon chemical composition<0.04%, better performance of resistance to intergranular corrosion
	MIG-316LSi		H0Cr19Ni12Mo2Si	ER316LSi	-	600	38	-	0.01	0.92	1.50	18.6	11.6	2.6	-	-	-	-	-	better weldability and deposited metal fluidity than FRW-316L
	MIG-317L		H03Cr19Ni14Mo3	ER317L	-	570	42	-	0.024	0.39	1.84	19.1	13.1	3.1	-	-	-	-	-	super low carbon and high Mo chemical composition, avoid of intergranular corrosion, without heat treatment, especially for acid & alkali resistance, sulfuric acid, organic acid
MIG-347	H06Cr20Ni10Nb	ER347	-	630	41	-	0.04	0.46	1.83	19.3	9.9	-	-	-	-	-	-	applied to weld of heat resistance steel, better corrosion resistance of weld bead after plus the chemical composition Nb		
MIG-2209	H03Cr22Ni6Mo3N	ER2209	-	745	27	-	0.01	0.41	1.66	22.6	8.7	3.18	-	-	-	-	-	Nb:0.15 Cu:0.12	applied to weld of duplex SS contains 22%Cr, like UNS S31803/Alloy 2009	

Category	Model	Welding method/ Shielded Gas	GB Standard	AWS Standard	Dia(mm)	Mechanical Properties of Deposited Metal				Chemical Composition of Deposited Metal(wt%)								Specifications & Application Introduction
						Yield strength/MPa	Tensile Strength/MPa	Elongation%	Impact Value J/℃	C	Mn	Si	Cr	Ni	Mo	P	S	
Nickel-based Alloy Steel	TIG-N1	GTAW/ Ar	SN2061	ERNi-1	2.0/2.4	-	485	42	-	0.008	0.43	0.07	-	Bal	-	-	-	contains 86Ni-3Ti, applied to weld of forgings and castings of pure Nickel. Chemical composition Ti will avoid porosity
	TIG-82		ERNiCr-3	ERNiCr-3	-	680	40	145(-196)	0.04	2.76	0.16	20.14	Bal	-	-	-	-	Inconel82 type wire applied to Inconel/hocloy weld like surfacing weld, dissimilar steel, better machinery performance of heat/oxidation resistance
	TIG-61		ERNiCrMo-3	ERNiCrMo-3	1.2/1.6/2.0/2.4/3/2	-	780	40	-	0.04	0.30	0.40	21.7	62.1	8.9	0.002	0.003	Inconel25 type wire applied to Inconel/Al605,Al606, weld like dissimilar steel weld, multi-layer weld, better performance of corrosion resistance, high tensile strength. Deposited metal
	TIG-17		ERNiCrMo-4	ERNiCrMo-4	-	740	39	-	0.012	0.82	0.07	16.2	Bal	16.88	0.003	0.002	-	Inconel-276 type wire, corrosion/high-temperature oxidation resistance, applied to weld of HastelloyC-276, Nickel-alloyed and ventral
	MIG-82	ERNiCr-3	ERNiCr-3	-	680	40	145(-196)	0.04	2.76	0.16	20.14	Bal	-	-	-	-	Inconel82 type wire applied to Inconel/hocloy weld like surfacing weld, dissimilar steel, better machinery performance of heat/oxidation resistance	
	MIG-61	ERNiCrMo-3	ERNiCrMo-3	1.0/1.2	-	780	40	-	0.04	0.30	0.40	21.7	62.1	8.9	0.002	0.003	-	Inconel25 type wire applied to Inconel/Al605,Al606, weld like dissimilar steel weld, multi-layer weld, better performance of corrosion resistance, high tensile strength. Deposited metal
	MIG-17	ERNiCrMo-4	ERNiCrMo-4	-	740	39	-	0.012	0.82	0.07	16.2	Bal	16.88	0.003	0.002	-	-	Inconel-276 type wire, corrosion/high-temperature oxidation resistance, applied to weld of HastelloyC-276, Nickel-alloyed and ventral

Submerged Arc Welding Wire

Category	Model	Welding Flux	YB Standard	AWS Standard	Mechanical Properties of Deposited Metal				Chemical Composition of Deposited Metal(wt%)								Specifications & Application Introduction	
					Yield strength/MPa	Tensile Strength/MPa	Elongation%	Impact Value J/℃	C	Mn	Si	Cr	Ni	Mo	P	S		Others
Stainless Steel	FRW-M308L	TFS-300	H03Cr21Ni10Si	ER308L	-	570	40	40(-110)	0.03	1.57	0.64	19.2	9.3	-	0.018	0.009	-	ultra-low stainless steel weld bead, weld metal carbon content ≤0.04%, good resistance to intergranular corrosion.
	FRW-M309L		H03Cr24Ni13Si	ER309L	-	545	38	60(-110)	0.04	1.57	0.47	21.33	12.35	-	0.023	0.005	-	suitable for welds of stainless steel structural steel and dissimilar steel when producing synthetic fiber& petrochemical equipment
	FRW-M316L	H03Cr19Ni12Mo2Si	ER316L	-	550	43	50(-110)	0.031	1.73	0.4	19.2	11.2	2.3	0.025	0.008	-	-	suitable for welding the same type of stainless steel components in the chemical industry and power engineering, such as AISI316, SUS316.
	FRW-M347	H08Cr20Ni10Nb	ER347	-	600	42	44(-110)	0.031	1.83	0.55	18.32	9.47	-	0.025	0.008	Nb:0.71	-	suitable for welding mother materials like AISI347, 321, 304, SUS347, 321, 304
FRW-M2209	-	ER2209	-	780	31	44(-40)	0.018	1.35	0.561	21.84	9.1	2.83	0.025	0.008	-	-	-	deposited metal contains 22Cr-9Ni-3Mo-0.15N applied to weld of 22%Cr duplex Stainless steel, like UNS S31803/Alloy2205
Nickel-based Alloy Steel	FRW-M61	TFS-303	-	ERNiCrMo-3	470	700	35	70(-196)	0.007	0.06	0.1	21.4	65.2	9.1	0.003	0.001	-	suitable for welding chemical equipment, and nuclear reacting furnace, Incon 625, high nickel-alloy material and dissimilar steel welding, also apply to welding 5%Ni steel plates, 9%Ni Steel storage tank.
	FRW-M17		-	ERNiCrMo-4	470	710	40	75(-196)	0.007	0.5	0.04	16.1	57.8	15.5	0.003	0.002	-	apply to bead welding HASTELLOY C-276, nickel alloy and mild steel, also apply to welding 5%Ni steel plates, 9%Ni Steel storage tank.

Product Name:ER 1070| Al99.7

Product description

ER1070 is a kind of pure aluminium welding wire with the aluminium more than 99.7% .

WIRE COMPOSITION (%)

	Al	Si	Fe	Cu	Mn	Mg	Zn	Be	Ti
Requirements-ER1070	99.7	<0.20	<0.25	<0.04	<0.03	<0.03	<0.04	<0.0003	<0.03
Typical Results	99.82	0.06	0.09	0.005	0.001	0.001	0.001	0.000	0.005

Mechanical Properties

Welding consumables	Y.S (MPa)	T.S (MPa)	El. (%)	Melting point (°C)	Anodizing color
ER1070	124-224	275-330	12-16	579-582	White

Key Features:

- Pure aluminum welding wire for MIG and TIG welding
- Good color-match after anodic process
- Good anti-corrosiveness
- Well electrical conductivity

Application:

- Buss bars
- Electrical boxes
- Heat exchangers
- Metallizing
- Electrical, chemical, construction and food industry
- Low strength corrosion resistant vessels and tanks

Shielding Gas:

- 100% Argon
- Argon/Helium mixture

Conformance:

- ISO 18273: S Al 1070 (Al99.7)
- SFA/AWS A5.10/A5.10M: ER1070

Diameters/Packing

Type	Diameters(mm)	Package	Weight(kg)
MIG wire	0.9mm, 1.0mm, 1.2mm,	D300mm Plastic Spool/Steel Spool	7
	1.6mm	D270mm Plastic Spool	7
	0.9mm, 1.0mm, 1.2mm	D200mm Plastic Spool	2
		D100mm Plastic Spool	0.5
TIG rod	1.6mm, 2.0mm, 2.4mm,	Length:1000mm	5
	3.0mm, 3.2mm, 4.0mm,	Carton or plastic tube	10
	5.0mm, 6.0mm		20

Aluminum Welding Wire

Product Name: ER4043 | AISi5

Product description

ER4043 (Al-Si5) is one of the oldest and most widely used welding and brazing alloys. SIWEITE ER4043 can be classified as a general purpose type filler alloy.

WIRE COMPOSITION (%)

	Al	Si	Fe	Cu	Mn	Mg	Zn	BE	Ti
Requirements-ER4043	Remainder	4.50-6.00	<0.80	<0.30	0.05	<0.05	<0.04	<0.0003	<0.15
Typical Results	Remainder	5	0.15	0.03	0.001	0.02	0.001	0.0000	0.01

Mechanical properties

Welding consumables	Y.S (MPa)	T.S (MPa)	El. (%)	Melting point (°C)	Anodizing color
ER4043	124-224	275-330	12-16	579-582	White

Key Features:

- Metal spraying.
- Lower melting point and good fluidity.
- More specifically the 6XXX series alloys.
- Designed for welding heat-treatable base alloys.
- Suitable for sustained elevated temperature service.
- Low sensitivity to weld cracking with the 6XXX series base alloys.

Application:

- For welding 6XXX alloys, and most casting alloys
- Automotive components
- Bicycle frames
- Recreation

Shielding Gas:

- 100% Argon
- Argon/Helium mixture

Conformance:

- ISO 10858-2008
- AWS A5.10

Diameters/Packing

Type	Diameters(mm)	Package	Weight(kg)
MIG wire	0.9mm, 1.0mm, 1.2mm, 1.6mm	D300mm Plastic Spool/Steel Spool	7
		D270mm Plastic Spool	7
	0.9mm, 1.0mm, 1.2mm	D200mm Plastic Spool	2
		D100mm Plastic Spool	0.5
TIG rod	1.6mm, 2.0mm, 2.4mm, 3.0mm, 3.2mm, 4.0mm, 5.0mm, 6.0mm	Length:1000mm	5
		Carton or plastic tube	10
			20

Aluminum Welding Wire

Product Name:ER4047| AlSi12

Product description

ER4047 is the eutectic aluminum silicon alloy welding wire with about 12% Si element. Suitable for Al-Si, Al-Si-Mg, Al Si mg Cu wrought aluminium and aluminium (7%Si) argon arc welding.

WIRE COMPOSITION (%)

	Al	Si	Fe	Cu	Mn	Mg	Zn	BE	Ti
Requirments-ER4047	Remainder	11.0-13.0	<0.80	<0.30	<0.10	<0.10	<0.20	<0.0003	<0.15
Typical Results	Remainder	0.06	0.11	0.005	0.75	4.8	0.005	0.0000	0.01

Mechanical properties

Welding consumables	Y.S (MPa)	T.S (MPa)	El. (%)	Melting point (°C)	Anodizing color
ER4047	124-224	275-330	12-16	579-582	White

Key Features:

- Welding filler.
- Metal spraying.
- Similar to AlSi12 (Germany), BS N21 (United Kingdom).
- Lower melting point and higher fluidity than 4043 wires.
- Widely used for brazing of aluminum, Al-Mn, Al-Si-Mg alloy materials.
- Can be used as a substitute for 4043 wires to increase silicon in the weld metal, minimize hot cracking and produce higher fillet weld shear strength.

Application:

- Automotive components
- Body panels
- Brazing of aluminum sheets, extrusions, and castings

Shielding Gas:

- 100% Argon
- Argon/Helium mixture

Conformance:

- ISO 18273: S Al 4047 (AlSi12)
- SFA/AWS A5.10/A5.10M: ER4047

Diameters/Packing

Type	Diameters(mm)	Package	Weight(kg)
MIG wire	0.9mm, 1.0mm, 1.2mm, 1.6mm	D300mm Plastic Spool/Steel Spool	7
		D270mm Plastic Spool	7
	0.9mm, 1.0mm, 1.2mm	D200mm Plastic Spool	2
		D100mm Plastic Spool	0.5
TIG rod	1.6mm, 2.0mm, 2.4mm, 3.0mm, 3.2mm, 4.0mm, 5.0mm, 6.0mm	Length:1000mm	5
		Carton or plastic tube	10
			20

Aluminum Welding Wire



Product Name: ER 5183 | AlMg4.5Mn0.7

Product description

ER5183 is a special aluminium alloy solid MIG wire containing 5% Magnesium and 0.75% Manganese for improved weld strength and resistance to sea water.

WIRE COMPOSITION (%)

	Al	Si	Fe	Cu	Mn	Mg	Cr	Zn	BE	Ti
Requirments-ER5183	Remainder	<0.40	<0.40	<0.10	0.50-0.10	4.30-5.20	0.05-0.25	<0.25	<0.0003	<0.15
Typical Results	Remainder	0.05	0.12	0.005	0.66	4.8	0.08	0.005	0.0000	0.08

Mechanical properties

Welding consumables	Y.S (MPa)	T.S (MPa)	El. (%)	Melting point (°C)	Anodizing color
ER5183	124-224	275-330	12-16	579-582	White

Key Features:

- Designed to meet higher tensile strength requirements
- Commonly used with 5083 and 5654 base materials
- Be used for welding 6xxx series alloys or joining 6xxx series to 5xxx series
- high resistance to sea water

Application:

- Cryogenic tanks
- Shipbuilding industry
- Railway industry
- Offshore industry
- High strength structural aluminum

Shielding Gas:

- 100% Argon
- Argon/Helium mixture

Conformance:

- ISO 10858-2008
- AWS A5.10

Diameters/Packing

Type	Diameters(mm)	Package	Weight(kg)
MIG wire	0.9mm, 1.0mm, 1.2mm,	D300mm Plastic Spool/Steel Spool	7
	1.6mm	D270mm Plastic Spool	7
	0.9mm, 1.0mm, 1.2mm	D200mm Plastic Spool	2
		D100mm Plastic Spool	0.5
TIG rod	1.6mm, 2.0mm, 2.4mm,	Length:1000mm	5
	3.0mm, 3.2mm, 4.0mm,	Carton or plastic tube	10
	5.0mm, 6.0mm		20

Aluminum Welding Wire

Product Name: ER 5356 | AlMg5Cr

Product description

The ER5356 is the most commonly used MIG filler wire. It welds 5000 series and 6000 series aluminum alloy.

WIRE COMPOSITION (%)

	Al	Si	Fe	Cu	Mn	Mg	Cr	Zn	BE	Ti
Requirements-ER5356	Remainder	<0.25	<0.40	<0.10	0.50-0.10	4.30-5.20	0.05-0.25	<0.25	<0.0003	<0.15
Typical Results	Remainder	0.06	0.1	0.005	0.66	4.8	0.08	0.005	0.0000	0.08

Mechanical properties

Welding consumables	Y.S (MPa)	T.S (MPa)	El. (%)	Melting point (°C)	Anodizing color
ER5356	124-224	275-330	12-16	579-582	White

Key Features:

- Designed to meet higher tensile strength requirements
- Commonly used with 5083 and 5654 base materials
- Be used for welding 6xxx series alloys or joining 6xxx series to 5xxx series
- high resistance to sea water

Application:

- Automotive components
- Shipbuilding industry
- Railway industry
- Trailer manufacturing
- General fabrication
- Power industry
- Structural frames

Shielding Gas:

- 100% Argon
- Argon/Helium mixture

Conformance:

- ISO 10858-2008
- AWS A5.10

Diameters/Packing

Type	Diameters(mm)	Package	Weight(kg)
MIG wire	0.9mm, 1.0mm, 1.2mm, 1.6mm	D300mm Plastic Spool/Steel Spool	7
		D270mm Plastic Spool	7
	0.9mm, 1.0mm, 1.2mm	D200mm Plastic Spool	2
		D100mm Plastic Spool	0.5
TIG rod	1.6mm, 2.0mm, 2.4mm, 3.0mm, 3.2mm, 4.0mm, 5.0mm, 6.0mm	Length:1000mm	5
		Carton or plastic tube	10
			20

Welding Electrode Drying Oven

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Model	J-5C	J-10C
Electrode Capacity	5Kg	10Kg
Input Voltage	AC220V	
Power	200W	800W
Max. Temperature	50°C-400°C	
Electrode Length	450mm (Can choose other type)	
Chamber Size	φ 190 × 548H mm	φ 228 × 605H mm
Overall Size(L×W×H)	3.0Kg	5.0Kg



Model	J-5B	J-10B
Electrode Capacity	5Kg	10Kg
Input Voltage	AC220V/230V AC,DC60-110V	
Power	500W	600W
Max. Temperature	180 ± 15°C	
Electrode Length	450mm (Can choose other type)	
Overall Size(L×W×H)	168 × 188 × 635mm	202 × 232 × 646mm
Weight	3.2Kg	4.3Kg



Model	J-5M	J-10M
Electrode Capacity	5Kg	10Kg
Input Voltage	AC,DC60-110V	
Power	200W	300W
Max. Temperature	150°C	
Electrode Length	450mm (Can choose other type)	
Chamber Size	φ 78 × (400+65)mm	φ 110 × (420+50)mm
Overall Size(L×W×H)	φ 175 × 548Hmm	φ 230 × 620Hmm
Weight	3.0Kg	4.5Kg



Model	J-10CE
Electrode Capacity	10Kg
Input Voltage	AC220V/230V
Power	300W
Max. Temperature	50°C-250°C
Electrode Length	450mm (Can choose other type)
Chamber Size	110 × (420 + 35)mm
Overall Size(L×W×H)	230 × 620mm
Weight	4.5Kg
Introduce	Cable terminal is made of claps or magnet With welding rod to support the tray and hook



Model	AR-30
Electrode Capacity	30KG
Input Voltage	AC220V
Power	1400W
Max. Temperature	50-400°C
Electrode Length	450mm
Chamber Size	390X600X670mm
Weight	38KG

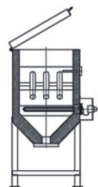


Model	AR-60
Electrode Capacity	60KG
Input Voltage	AC220V
Power	2000W
Max. Temperature	50-400°C
Electrode Length	450mm
Chamber Size	510X670X720mm
Weight	51KG



Model	A-25R
Electrode Capacity	25KG
Input Voltage	AC220V
Power	800W
Max. Temperature	50-300°C
Electrode Length	450mm
Chamber Size	350X450X580mm
Weight	17.6KG





Model	AF-100L	AF-150L	AF-200L	AF-300L
Product Name	FLUX OVEN			
Capacity	100 Liter	150 Liter	200 Liter	300 Liter
Input Voltage	AC220V, 460V 50HZ			
Temperature	50°C-300°C			
Size L*W*H	740 × 650 × 1050mm	740 × 650 × 1150mm	740 × 650 × 1350mm	(740 × 650 × 1150mm) × 2
Weight	75Kg	95Kg	103Kg	180Kg

Welding Electrode Drying Oven

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Model	J-5T
Electrode Capacity	5KG
Input Voltage	AC220V DC110V
Power	320W/500W
Max. Temperature	150°C
Electrode Length	450mm
Chamber Size	20.2X23.2X64.6cm
Weight	3.2KG



Model	A-350M	A-450M
Electrode Capacity	4.5KG	6.5KG
Electrode Length	300mm	450mm
Chamber Size	9.7X9.7X38.1cm	9.7X9.7X48.3cm



Item	Flux Oven
Model	AF-100SS
Flux Capacity	100KG
Input Voltage	AC220V
Power	3500W
Temperature Range	50-300°C
Overall Size (LxWxH)	760x635x1250MM
Weight	45KG



Item	Water Cooling System
Model	WRC-300A
Input	220V or 110V, 50/60Hz
Motor	260w (0.9A/220V)
Duty Cycle	100%
Max Pressure	3 BAR (30MINGH)
Tank Capacity	9 LITRE
Flow Rate	8.5L/MINUTE AT 6mH
Operation Temperature	-20°C-60°C
Dimension	54(L) x 26 (W) x 35 (H)
Weight	5.9KG

Welding Electrode Drying Oven

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Model	A-25ET
Electrode Capacity	25KG
Input Voltage	AC240V/AC.DC60V-110V
Power	500W
Temperature Range	50-300°C
Electrode length	450MM (Can choose other type)
Chamber Size	φ190 x 490MM
Overall Size (L x W x H)	315 x 295 x 575MM
Weight	14KG

Model	A-25E-1
Electrode Capacity	25KG
Input Voltage	AC240V/ AC.DC60V-110V
Power	500W
Temperature Range	50-150°C
Electrode length	450MM (Can choose other type)
Chamber Size	φ190 x 490MM
Overall Size (L x W x H)	320 x 305 x 570MM
Weight	14KG



Model	A-25E-2
Electrode Capacity	25KG
Input Voltage	AC240V/ AC.DC60V-110V
Power	500W
Temperature Range	50-150°C
Electrode length	450MM (Can choose other type)
Chamber Size	φ190 x 490MM
Overall Size (L x W x H)	315 x 315 x 570MM
Weight	14KG

Model	A-25STL-1
Electrode Capacity	25KG
Input Voltage	AC240V/AC.DC60V-110V
Power	500W
Temperature Range	50-150°C
Electrode length	450MM (Can choose other type)
Chamber Size	φ190 x 490MM
Overall Size (L x W x H)	400 x 360 x 650MM
Weight	20KG

Welding Electrode Drying Oven

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Model	A-25STL-2
Electrode Capacity	25KG
Input Voltage	AC240V/AC.DC60V-110V
Power	500W
Temperature Range	50-150°C
Electrode length	450MM (Can choose other type)
Chamber Size	φ 190 x 490MM
Overall Size (L x W x H)	400 x 360 x 650MM
Weight	20KG



Model	A-25STL-3
Electrode Capacity	25KG
Input Voltage	AC240V/AC.DC60V-110V
Power	500W
Temperature Range	50-150°C
Electrode length	450MM (Can choose other type)
Chamber Size	φ 190 x 490MM
Overall Size (L x W x H)	400 x 345 x 650MM
Weight	20KG



Model	A-70S
Electrode Capacity	70KG
Input Voltage	AC220V
Power	1000W
Temperature Range	50-300°C
Electrode length	450MM (Can choose other type)
Chamber Size	φ 370 x 500MM
Overall Size (L x W x H)	640 x 480 x 615MM
Weight	47KG



Model	A-70E
Electrode Capacity	70KG
Input Voltage	AC220V
Power	1000W
Temperature Range	50-150°C
Electrode length	450MM (Can choose other type)
Chamber Size	φ 370 x 500MM
Overall Size (L x W x H)	640 x 480 x 615MM
Weight	47KG

Welding Electrode Drying Oven

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Model	EA-400
Electrode capacity	400KG
Input Voltage	3Phase, 380V
Power	5400W
Temperature Range	50-400°C
Electrode length	450MM (Can choose other type)
Overall size(LxWxH)	840x780x1390MM
Weight	200KG



Model	ZYH-50S
Electrode capacity	50KG
Input Voltage	AC220V
Power	1800W
Temperature Range	50-250°C
Electrode length	450MM (Can choose other type)
Overall size(LxWxH)	665x640x560MM
Weight	25KG



Model	EA-100T/T	EA-200T/T	EA-400T/T
Electrode capacity	100KG	200KG	400KG
Input Voltage	220V	220V	220V
Power	1000W	1500W	3000W
Temperature Range	300°C	300°C	300°C
Electrode length	450mm (can choose other type)	450mm (can choose other type)	450mm (can choose other type)
Chamber size	550x285x490MM	550x560x490MM	900x580x490MM
Overall size(LxWxH)	950x740x500MM	915x745x800MM	1305x735x800MM
Weight	35KG	56KG	105KG



Model	ZYH-200S
Electrode capacity	200KG
Input Voltage	AC220V
Power	2400W
Temperature Range	50-250°C
Electrode length	450MM (Can choose other type)
Overall size(LxWxH)	800x670x1060MM
Weight	65KG



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