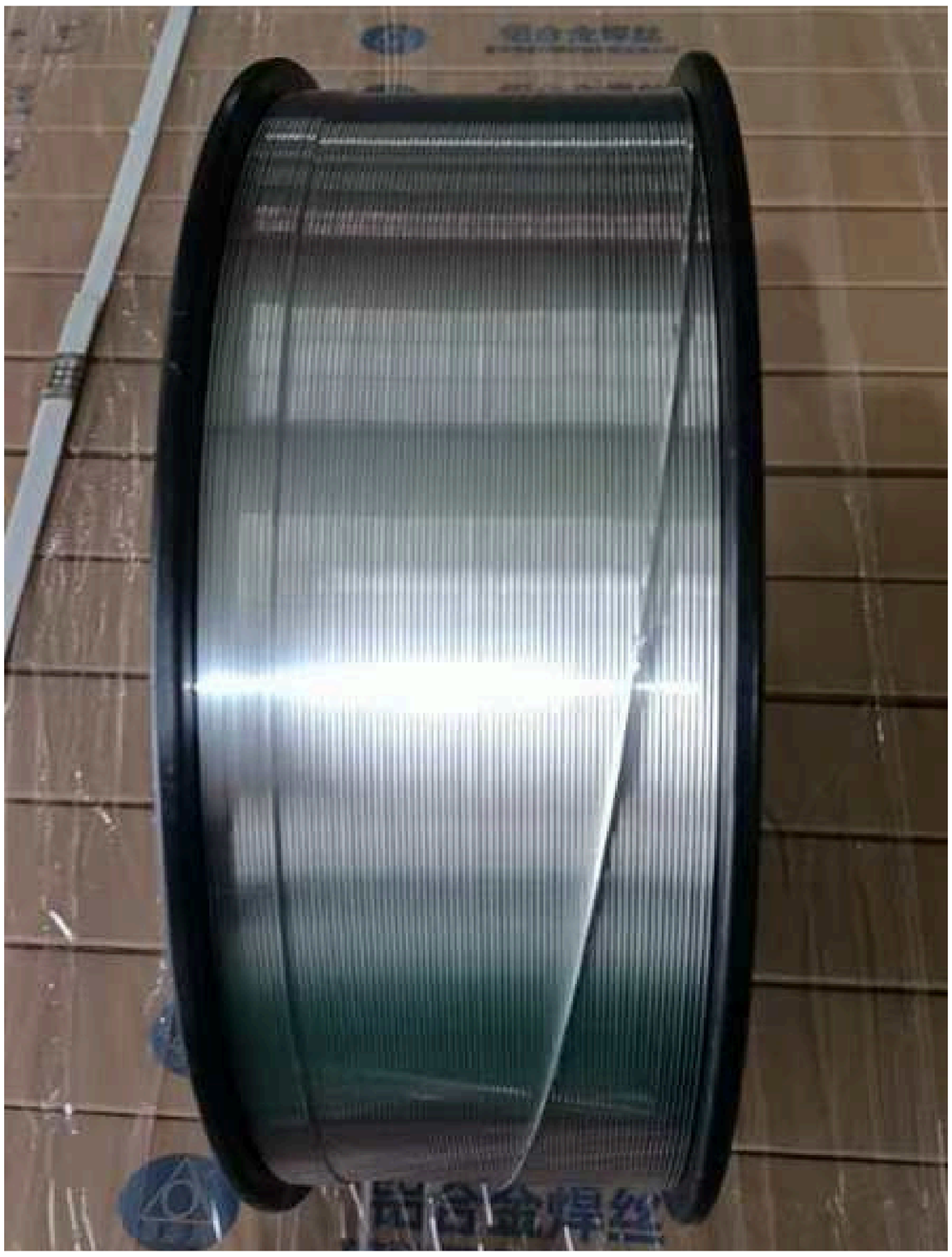
Company Introduction

Hyprus Welding is a high-tech enterprise specializing in the R&D and manufacturing of high-performance aluminum and magnesium alloy welding materials, as well as 3D printing additives. We proudly serve industries that demand top-quality welding wires, including aviation, aerospace, defense, shipbuilding, high-speed rail, and automotive manufacturing.

With a strong focus on innovation, we have established a comprehensive production base in Chongqing's high-tech development zone, supported by leading research institutes such as the China Academy of Launch Vehicle Technology, the 52nd Institute of China North Industries Group, and Southeast University. Through years of dedicated research, we have developed a highly efficient, stable, and quality-driven production system.

Our product range, including aluminum alloy welding wires 2319, 4043, 5356, 5087, magnesium alloy welding wires AZ31B, AZ61, and light alloy 3D printing wires such as 2024, 7050, 5-series aluminum alloy with scandium, and high-strength rare earth magnesium alloys, meets or exceeds international standards.



Product Overview

Aluminum Alloy Welding Wires

2319

Si	Fe	Cu	Mn	Mg	Zn	Ca. Y	Ti	Be
≤0.20	≤0.30	5.80~6.80	0.20~0.40	≤0.02	≤0.10	0.05~0.15	0.10~0.20	≤0.0003

Key Features

- Offers higher strength and better ductility when used for welding 2 series aluminum alloys.
- Provides excellent resistance to stress-corrosion cracking when high-temperature performance is required.

Typical Applications

- Welding aluminum alloy 2219
- High strength structure
- Defense
- Aerospace

4043

Si	Fe	Cu	Mn	Mg	Zn	Ti	Be
4.50~6.00	≤0.80	≤0.30	≤0.05	≤0.05	≤0.10	≤0.20	≤0.0003

Key Features

- Lower melting point and better fluidity than 5 series aluminum alloys.
- Squeezed and cast parts have a more aesthetic weld seam surface, and welded parts can be heat treated.
- Not recommended for use in anodizing conditions.

Typical Applications

- Welding 6 Series Aluminum Alloy
- Automotive Parts
- Bicycles
- General Manufacturing Industry

5356

The most widely used aluminum alloy welding material.

Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti
≤0.25	≤0.40	≤0.10	0.05~0.20	4.50~5.50	0.05~0.20	≤0.10	0.06~0.20

Typical Applications

- Automotive Manufacturing, Shipbuilding, Railway, and General Manufacturing.

5087

Si	Fe	Cu	Mn	Mg	Cr	Zn	Ti	Zr	Be
≤0.25	≤0.40	≤0.05	0.70~1.10	4.50~5.20	0.05~0.25	≤0.25	≤0.15	0.10~0.20	≤0.0003

Key Features

- Designed to meet higher strength and corrosion resistance.
- It can refine the microstructure of the weld metal and reduce the tendency for hot cracking in the weld.

Typical Applications

- Marine engineering construction and repair
- Shipbuilding and other high-strength aluminum structures
- Offshore platform industry, railway transportation

Magnesium Alloy Welding Wire AZ31B, AZ61 and AZ91

Hyprus has built a world-class magnesium alloy welding wire production line with a proprietary production process, offering straight wire, coiled wire, and drum-packed options. Magnesium alloy welding wire is mainly used for welding magnesium alloy plates, extrusions, and forgings. Our magnesium alloy coiled wire features a smooth surface similar to aluminum welding wire, offering excellent wire feeding performance. Besides listed products, Hyprus also provides rare earth magnesium alloy welding wires required for military applications.

AZ31B	**Al**	**Zn**	**Mn**	**Ca**	**Si**	**Fe**	**Cu**	**Ni**
	2.50~3.50	0.60~1.40	0.20~1.00	≤0.04	≤0.08	≤0.003	≤0.01	≤0.001

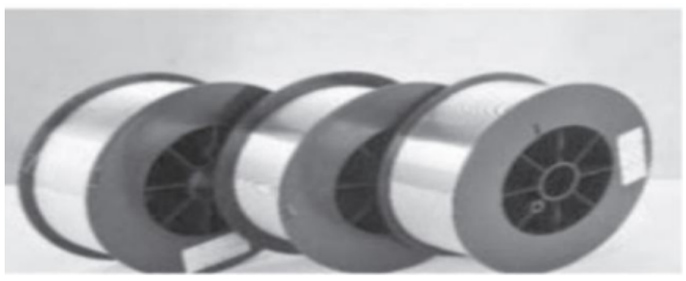
AZ61	**Al**	**Zn**	**Mn**	**Si**	**Fe**	**Cu**	**Ni**
	5.80~7.20	0.40~1.50	0.15~0.50	≤0.10	≤0.005	≤0.05	≤0.005

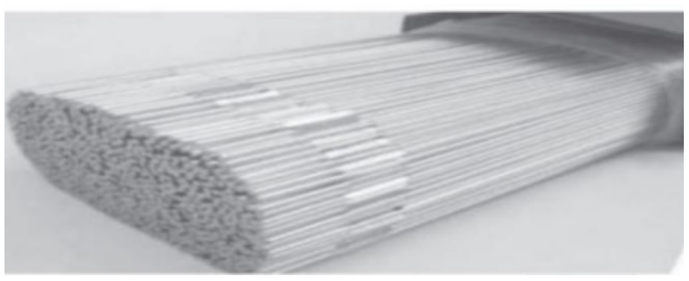
AZ91	**Al**	**Zn**	**Mn**	**Si**	**Fe**	**Cu**	**Ni**
	8.50~9.50	0.45~0.90	0.17~0.40	≤0.08	≤0.004	≤0.02	≤0.001

HYPRUS
Aluminum and magnesium alloy welding materials

Product Specifications

Product	Diameter	Length	Unit	Net Weight
Straight Wire	1.6、2.0、2.4、3.0 3.2、4.0、5.0	1000	Bundle	5 KG
Coiled Wire	1.2、1.6、2.0			7.0-7.1 KG
Drum-Packed Wire	510		Drum	80 KG (aluminum alloy) 53 KG (magnesium alloy)
Drum-Packed Wire	660		Drum	100 KG (aluminum alloy) 66 KG (magnesium alloy)





Technical Advantages

Compared to traditional domestic and international processes, Hyprus production technology has the following advantages:

- Short process, high efficiency, and high quality.
- Excellent stability in product chemical composition.
- Dimensional accuracy, gas and slag content meet international advanced standards.
- Surface finish meets international advanced standards, ensuring excellent wire feeding performance for coiled wires.

Hyprus Welding — Your trusted source of high-performance welding materials.

Aluminum Alloy Welding Wires
Magnesium Alloy Welding Wires
Light Alloy 3D Printing Wires

Contact Us

Address: Building 13 Yinyan Road, Xipeng Town, Jiulongpo District, Chongqing, China
Email: freya.you@hypruswelding.com
Tel:023-65820221