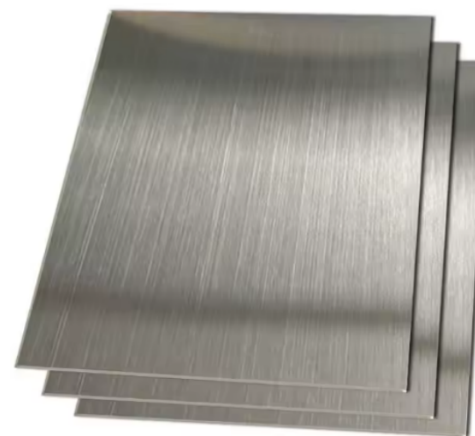
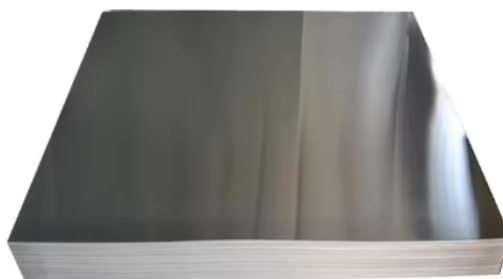
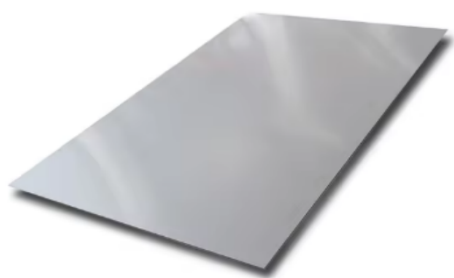


Wuxi Gotele Metal Products Co.,LTD is a company engaged in the sales of metal products, metal materials, and metal packaging containers.

WUXI GOTELE METAL PRODUCTS CO.,LTD

INTRODUCTION

Product Introduction



Product List

(Stainless Steel)

200 series products

201

300 series products

304, 304J1, 321
304N, 316L, 316Ti
317L, 309S, 310S

400 series products

403, 430LX
410L, 409L

Duplex stainless steel

2205
2507

ELIMINATE DEFECTIVE PRODUCTS
ADHERE TO DELIVERY DEADLINES STRICTLY

200 series

201

Stainless Steel

200 series austenitic stainless steel developed by replacing Ni with Mn and N elements. This steel grade has good corrosion resistance and cold and hot processing performance, replacing 304 products used in low corrosive environments such as indoors and outdoors in inland cities.

Properties and Practical use:

| | |
|-------------|--|
| Steel grade | POSZPHT1 |
| Property | After solid solution treatment, it has high strength, toughness, and wear resistance; Economy and low Ni content ensure cost advantages. |
| Use | Decorative pipes, industrial pipes, and some shallow drawn products. Surface processing products such as shallow processing cookware, indoor staircase handrails, elevators, mirror surfaces, brushed surfaces, etc. |

Chemical composition: (unit: wt%)

| Specifications | C | Mn | Cr | Ni | Cu | Others |
|----------------|--------|----------|-----------|---------|---------|------------|
| POSZPHT1 | ≤ 0.10 | 7.0-10.5 | 13.0-17.0 | 0.5-3.0 | 1.0-3.0 | N: 0.1-0.3 |

Mechanical performance:

| Specifications | YS(Mpa) | TS(Mpa) | EL% | Hv | Remark |
|----------------|---------|---------|-----|-----|--------|
| POSZPHT1 | 426 | 880 | 52 | 224 | 1.0t |
| 304 Comparison | 285 | 710 | 58 | 165 | 1.0t |

300 series

304

Stainless Steel

304(L) As the basic steel type of the AUSTENITE series, it has excellent corrosion resistance, heat resistance, low-temperature strength, and mechanical properties. After heat treatment, it does not harden and has almost no magnetism

Properties and Practical use:

| Difference | 304 | 304L |
|------------|---|---|
| Property | -Austenitic basic steel grades, with the most extensive applications; -Excellent corrosion and heat resistance; -Excellent low-temperature strength and mechanical properties; -Single phase austenite structure without heat treatment hardening phenomenon | -Compared to 304, it has excellent corrosion resistance |
| Use | -Type 1 and 2 tableware, exterior materials, building materials, automotive components, - medical devices, chemistry, food processing, fiber industry, ship components | -Equipment in the chemical, coal, and petroleum industries that require high resistance to grain boundary corrosion - building materials, heat-resistant components, and parts that are difficult to heat treat |

Chemical composition: (unit: wt%)

| Specifications | C | Si | Mn | P | S | Cr | Ni |
|----------------|--------|-------|-------|--------|--------|------------|-----------|
| 304 | ≤0.08 | ≤1.00 | ≤2.00 | ≤0.045 | ≤0.030 | ≤18.0-20.0 | ≤8.0-10.5 |
| 304L | ≤0.030 | ≤1.00 | ≤2.00 | ≤0.045 | ≤0.030 | ≤18.0-20.0 | ≤8.0-10.5 |

Mechanical performance:

| Specifications | YS(Mpa) | TS(Mpa) | EL% | Hv |
|----------------|---------|---------|------|-------|
| 304 | ≥ 205 | ≥ 520 | ≥ 40 | ≤ 200 |
| 304L | ≥ 175 | ≥ 480 | ≥ 40 | ≤ 200 |

300 series

304J1

Stainless Steel

Compared to 304, it ensures excellent formability (composite formability, deep processing ability, excellent hysteresis performance after processing, etc.) and excellent aging resistance and cracking resistance

Properties and Practical use:

| | |
|-------------|---|
| Steel Grade | 304J1 |
| Property | -Excellent formability and resistance to aging and cracking |
| Use | -Insulated lunch box, insulated bottle, SINK BOWL, gas, BURNER components |

Chemical composition: (unit: wt%)

| Specification | C | Si | Mn | P | S | Cr | Ni | Other |
|---------------|-------|-------|-------|--------|--------|-----------|---------|--------|
| 304J1 | ≤0.08 | ≤1.70 | ≤3.00 | ≤0.045 | ≤0.030 | 15.0-18.0 | 6.0-9.0 | Cu:1-3 |

Mechanical performance:

| Specification | YS(Mpa) | TS(Mpa) | EL% | Hv |
|---------------|---------|---------|------|-------|
| SUS304J1 | ≥ 155 | ≥ 450 | ≥ 40 | ≤ 200 |

Formability:

| Difference | Thickness (mm) | Er (mm) | LDR | CCV | Time limited cracking limit |
|------------|----------------|---------|------|------|-----------------------------|
| 304J1 | 0.6 | 13.2 | 2.14 | 26.3 | 3.3 |
| 304 | -- | 12.8 | 1.98 | 27.0 | 2.6 |

300 series

321

Stainless Steel

Adding carbon stabilizing element T to 304 steel grade to suppress grain boundary sharpening and develop it for use in the sharpening range (450 °C~850 °C). After adding T, defects (inclusion line, Ti-streak) are more common in steel grades

Properties and Practical use:

| | |
|-------------|---|
| Steel Grade | 321 |
| Property | -Used in the sharpening range (450 °C~850 °C) |
| Use | -Boiler heat exchangers, pipelines, expansion joints, and other welded components/equipment that cannot undergo heat treatment after assembly |

Chemical composition: (unit: wt%)

| Specification | C | Si | Mn | P | S | Cr | Ni | Other |
|---------------|-------|-------|-------|--------|--------|-----------|----------|------------|
| 321 | ≤0.08 | ≤1.00 | ≤2.00 | ≤0.045 | ≤0.030 | 17.0-19.0 | 9.0-13.0 | Ti: ≥ 5*C% |

Mechanical performance:

| Specification | YS(Mpa) | TS(Mpa) | EL% | Hv |
|---------------|---------|---------|------|-------|
| 321 | ≥ 205 | ≥ 520 | ≥ 40 | ≤ 200 |

300 series

304N

Stainless Steel

Made by adding 0.1%~0.25% nitrogen to 304 steel. Due to the addition of nitrogen, the strength of the steel is increased while the plasticity is not reduced, thus reducing the thickness of the parts. Meanwhile, the corrosion resistance of steel has also been improved.

Properties and Practical use:

| | |
|-------------|---|
| Steel Grade | 304N |
| Property | -Reduce S and add N to improve strength: Adding high N has excellent corrosion resistance |
| Use | -Construction materials, street lamps, water pipes, cooling pipes for power plants |

Chemical composition: (unit: wt%)

| Specification | C | Si | Mn | Cr | Ni |
|---------------|--------|-------|-------|-----------|----------|
| 304N | ≤0.050 | ≤0.75 | ≤2.00 | 18.0-20.0 | 8.0-10.5 |

Mechanical performance:

| Specification | YS(Mpa) | TS(Mpa) | EL% | Hv | Remark |
|---------------|---------|---------|-----|-----|-------------------|
| 304N | 355 | 697 | 49 | 183 | cold rolling 1.5t |

300 series

316(L)

Stainless Steel

Added Mo (2-3%) to achieve excellent resistance to pitting and corrosion, with excellent high-temperature Creep strength

Properties and Practical use:

| | |
|-------------|---|
| Steel Grade | 316(L) |
| Property | -Excellent resistance to grain boundary corrosion |
| Use | -Boiler pipes, marine structures |

Chemical composition: (unit: wt%)

| Specification | C | Si | Mn | P | S | Cr | Ni | Other |
|---------------|-------|-------|-------|--------|--------|-----------|-----------|--------|
| SUS316 | ≤0.08 | ≤1.00 | ≤2.00 | ≤0.045 | ≤0.030 | 16.0-18.0 | 10.0-14.0 | Mo:2-3 |
| SUS316L | ≤0.03 | ≤1.00 | ≤2.00 | ≤0.045 | ≤0.030 | 16.0-18.0 | 12.0-15.0 | Mo:2-3 |

Mechanical performance:

| Specification | YS(Mpa) | TS(Mpa) | EL% | Hv |
|---------------|---------|---------|------|-------|
| SUS316 | ≥ 205 | ≥ 520 | ≥ 40 | ≤ 200 |
| SUS316L | ≥ 175 | ≥ 480 | ≥ 40 | ≤ 200 |

300 series

316Ti

Stainless Steel

316Ti is the austenitic stainless steel which added Ti to 316 steel to improve its intergranular corrosion resistance

Properties and Practical use:

| | |
|-------------|--|
| Steel Grade | 316Ti |
| Property | -Strong resistance to intergranular corrosion |
| Use | -Applied in petrochemical, electromechanical hardware, ships, power plants |

Chemical composition: (unit: wt%)

| Specification | C | Si | Mn | P | S | Ni | Cr | Mo | Other |
|---------------|-------|-------|-------|--------|--------|-----------|-----------|---------|---------|
| 316Ti | ≤0.08 | ≤1.00 | ≤2.00 | ≤0.045 | ≤0.030 | 10.0-14.0 | 16.0-18.0 | 2.0-3.0 | ≥Ti5*C% |

Mechanical performance:

| Specification | YS(Mpa) | TS(Mpa) | EL% | Hv |
|---------------|---------|---------|------|-------|
| 316Ti | ≥ 205 | ≥ 520 | ≥ 40 | ≤ 200 |

300 series

317(L) Stainless Steel

Properties and Practical use:

| | |
|-------------|--|
| Steel Grade | 317L |
| Property | -317L steel has good seawater and SCC resistance compared to 316L |
| Use | -Used for chemical vessels, chemical products, Reactors, and other chemical equipment that require high corrosion resistance |

Chemical composition: (unit: wt%)

| Specification | C | Si | Mn | P | S | Ni | Cr | Mo | Other |
|---------------|--------|-------|-------|--------|--------|-----------|-----------|---------|-------|
| 317L | ≤0.030 | ≤1.00 | ≤2.00 | ≤0.045 | ≤0.030 | 11.0-15.0 | 18.0-20.0 | 3.0-4.0 | - |

Mechanical performance:

| Specification | YS(Mpa) | TS(Mpa) | EL% | Hv |
|---------------|---------|---------|------|-------|
| 317L | ≥ 176 | ≥ 480 | ≥ 40 | ≤ 200 |

300 series

309(S) Stainless Steel

23Cr-13N high alloy stainless steel, with excellent corrosion resistance and strength, is suitable for components operating at a temperature of 1000 °C

Properties and Practical use:

| | |
|-------------|--|
| Steel Grade | 309S |
| Property | -High alloy stainless steel, with excellent high-temperature acid resistance and high-temperature strength |
| Use | -Exhaust machines, heat treatment furnaces, and heat exchangers, etc |

Chemical composition: (unit: wt%)

| Specification | C | Si | Mn | P | S | Cr | Ni | Other |
|---------------|-------|-------|-------|--------|--------|-----------|-----------|-------|
| 309S | ≤0.08 | ≤1.00 | ≤2.00 | ≤0.045 | ≤0.030 | 22.0-24.0 | 12.0-15.0 | - |

Mechanical performance:

| Specification | YS(Mpa) | TS(Mpa) | EL% | Hv |
|---------------|---------|---------|------|-------|
| 309S | ≥ 205 | ≥ 520 | ≥ 40 | ≤ 200 |

300 series

310(S) Stainless Steel

25Cr-20Ni high alloy stainless steel with excellent high-temperature oxidation resistance, suitable for heat-resistant parts below 1000 °C

Properties and Practical use:

| | |
|-------------|--|
| Steel Grade | 310S |
| Property | -High temperature oxidation resistance, high temperature strength |
| Use | -Steel grades that require heat resistance, such as exhaust pipes, microwave heaters, tubes, and cremation furnaces, as well as high heat and high temperature contact parts (below 1000 °C) |

Chemical composition: (unit: wt%)

| Specification | C | Si | Mn | P | S | Cr | Ni | Other |
|---------------|-------|-------|-------|--------|--------|-----------|-----------|-------|
| 310S | ≤0.08 | ≤1.50 | ≤2.00 | ≤0.045 | ≤0.030 | 24.0-26.0 | 19.0-22.0 | - |

Mechanical performance:

| Specification | YS(Mpa) | TS(Mpa) | EL% | Hv |
|---------------|---------|---------|------|-------|
| 310S | ≥ 205 | ≥ 520 | ≥ 40 | ≤ 200 |

400 series

430

Stainless Steel

430 is the representative steel type in ferrite, with low thermal expansion rate, excellent formability and acid resistance.

Properties and Practical use:

| | |
|-------------|---|
| Steel Grade | 430 |
| Property | -Good corrosion resistance, better thermal conductivity than austenite, smaller coefficient of thermal expansion than austenite, and heat resistance to fatigue. |
| Use | -Heat resistant appliances, stoves, household appliance components, computer components (hard drives), Chinese and Western tableware, combination stove top panels, building interior and exterior decorative materials, gas stove top panels, washing sinks. |

Chemical composition: (unit: wt%)

| Specification | C | Ni | Cr | Mo | Other |
|---------------|-------|----|-----------|----|-------|
| 430 | ≤0.12 | - | 16.0-18.0 | - | - |

Mechanical performance:

| Specification | YS(Mpa) | TS(Mpa) | EL% | Hv | Remark |
|---------------|---------|---------|-----|-----|--------|
| 430 | 303 | 527 | 28 | 150 | 0.4t |

400 series

430LX

Stainless Steel

430LX is a double stabilized steel grade modified on the basis of 430, with the addition of Nb-Ti, which improves the workability and weldability of the steel grade.

Properties and Practical use:

| | |
|-------------|---|
| Steel Grade | 430LX |
| Property | -Corrosion resistance is better than 430, with improved weldability and processability, and good resistance to intergranular corrosion. |
| Use | -Hot water tank, hot water supply system, sanitary ware, durable household appliances, bicycle flywheel; Production of nitric acid, ammonium nitrate, etc. requires containers and pipelines for oxidizing acids; Can partially replace 304 to make kitchen utensils and tableware. |

Chemical composition: (unit: wt%)

| Specification | C | Ni | Cr | Ti | Nb | Other |
|---------------|-------|----|-------|-------|------|-------|
| 430LX | 0.010 | - | 16.50 | 0.075 | 0.15 | - |

Mechanical performance:

| Specification | YS(Mpa) | TS(Mpa) | EL% | Hv | Remark |
|---------------|---------|---------|-----|-----|-------------------|
| 430LX | 303 | 485 | 31 | 145 | Cold rolling 0.8t |

400 series

410L

Stainless Steel

According to LowCarbon's Ferrite structure, the bending and mechanical properties of the welding area are excellent

Properties and Practical use:

| | |
|-------------|--|
| Steel Grade | 410L |
| Property | -Grinding resistance, Bending processability, weldability |
| Use | -Freezing Container Frame and external materials, automotive exhaust pipes (below 800 °C), heat-resistant equipment components |

Chemical composition: (unit: wt%)

| Specification | C | Si | Mn | P | S | Cr |
|---------------|---------|--------|--------|--------|--------|-------------|
| 410L | ≤ 0.030 | ≤ 1.00 | ≤ 1.00 | ≤0.040 | ≤0.030 | 11.00-13.50 |

Mechanical performance:

| Specification | YS(Mpa) | TS(Mpa) | EL% | Hv |
|---------------|---------|---------|-----|------|
| 410L | ≥195 | ≥360 | ≥22 | ≥200 |

400 series

409L

Stainless Steel

In order to improve workability and weldability, corrosive additives such as LowCarbon and stabilizing elements are added, containing 11% Cr. Ferrite series heat-resistant steel maintains a complete BCC structure at high temperatures and room temperatures, maintaining excellent workability and weldability. It has appropriate high-temperature characteristics and room temperature corrosion resistance, and is mainly used as a raw material for heat-resistant equipment.

Properties and Practical use:

| | |
|-------------|--|
| Steel Grade | 409L |
| Property | -High temperature strength and high temperature corrosion resistance, weldability |
| Use | -Automotive exhaust pipe components (Font Pipe, ConverterShell, Center Pipe, Tail and Pipe), heat exchangers, heat-resistant equipment, low-grade tableware, electronic components (FDD, Case) |

Chemical composition: (unit: wt%)

| Specification | C | Si | Mn | B > P | S | Cr | Other |
|---------------|---------|--------|--------|--------|--------|-------------|---------------|
| 409L | ≤ 0.030 | ≤ 1.00 | ≤ 1.00 | ≤0.040 | ≤0.030 | 10.50-11.75 | Ti: 6xC%-0.75 |

Mechanical performance:

| Specification | YS(Mpa) | TS(Mpa) | EL% | Hv |
|---------------|---------|---------|-----|------|
| 409L | ≥175 | ≥360 | ≥25 | ≥175 |

Duplex stainless steel

2205

1. Compared with 316L and 317L austenitic stainless steel, 2205 alloy of duplex stainless steel has superior performance in resistance to spot corrosion and crack corrosion. It has high corrosion resistance, lower coefficient of thermal expansion, and higher thermal conductivity.

2. Compared with austenitic stainless steel, duplex stainless steel 2205 alloy has twice the compressive strength, and designers can reduce its weight compared to 316L and 317L.

2205 alloy is particularly suitable for the temperature range of $-50^{\circ}\text{F}/+600^{\circ}\text{F}$, and can also be used at lower temperatures under strict limitations (especially for welded structures).

Chemical composition: $\text{C} \leq 0.030$, $\text{Mn} \leq 2.00$, $\text{Si} \leq 1.00$, $\text{P} \leq 0.030$, $\text{S} \leq 0.020$, $\text{Cr} 22.0-23.0$, $\text{Ni} 4.5-6.5$, $\text{Mo} 3.0-3.5$ N 0.14-0.20 (austenite ferrite type)

Application area:

- Pressure vessels, high-pressure storage tanks, high-pressure pipelines, heat exchangers (chemical processing industry).
- Oil and gas pipelines, heat exchanger fittings.
- Sewage treatment system.
- Pulp and paper industry classifiers, bleaching equipment, storage and processing systems.
- Rotary shafts, press rollers, blades, impellers, etc. in high-strength and corrosion-resistant environments.
- Cargo boxes of ships or trucks
- Food processing equipment

Standard:

ASTM/ASME.....A240 UNS S32205/S31803

EURONORM.....1.4462 X2CrNiMoN 22.5.3

AFNOR.....Z3 CrNi 22.05 AZ

DIN.....W. Nr 1.4462

Corrosion resistance:

- Uniform corrosion

Due to the chromium content (22%), molybdenum content (3%), and nitrogen content (0.18%), the corrosion resistance of 2205 is superior to 316L and 317L in most environments.

- Local corrosion resistance

The content of chromium, molybdenum, and nitrogen in 2205 duplex stainless steel makes it highly resistant to point corrosion and crevice corrosion in oxidizing and acidic solutions.

- Stress corrosion resistance

The dual phase microstructure of stainless steel helps to improve its resistance to stress corrosion cracking. Under certain temperature, stress, oxygen, and chloride conditions, austenitic stainless steel will undergo chloride stress corrosion. Due to the difficulty in controlling these conditions, the use of 304L, 316L, and 317L is limited in this regard.

- Corrosion fatigue resistance

The high strength and corrosion resistance of 2205 duplex steel make it highly resistant to corrosion fatigue. Processing equipment is susceptible to corrosive environments and loading cycles, and the characteristics of 2205 are very suitable for such applications.

Duplex stainless steel

2507

2507 is a type of ferritic austenitic (duplex) stainless steel that combines the most beneficial properties of many ferritic and austenitic steels. Due to its high chromium and molybdenum content, the steel has excellent resistance to point corrosion, crevice corrosion, and uniform corrosion. The duplex microstructure ensures that the steel has high resistance to stress corrosion cracking and high mechanical strength

Typical microstructure of 2507 duplex stainless steel

2507 stainless steel is used in the petroleum and natural gas industry; Offshore rock breaking oil platform (heat exchanger pipes, water treatment and supply systems, fire protection systems, sprinkler systems, stable water systems; petrochemical equipment; desalination (desalination) equipment (and high-pressure pipes and seawater pipes in the equipment); Mechanical and structural components that require both high strength and high corrosion resistance; Fuel (waste) gas purification equipment. Main components: 25Cr-7Ni-4Mo-0.27N

National standards:

ASTM/ASME:A240 - UNS S32750

EURONORM:1.4410 - X2 Cr Ni MoN 25.7.4

AFNOR:Z3 CN 25.06 Az

DIN/EN 1.4410、 ASME SA-240

Corrosion resistance:

1. General corrosion

The high chromium and molybdenum content of SAF 2507 gives it strong resistance to overall corrosion of organic acids such as formic acid and acetic acid SAF2507 alloy has strong corrosion resistance to inorganic acids, especially those containing chlorides

Compared with 904L, SAF2507 has stronger corrosion resistance to diluted sulfuric acid mixed with chloride ions. 904L is an austenitic alloy specifically designed to resist pure sulfuric acid corrosion

316L grade cannot be used in hydrochloric acid environments as it may suffer from localized or overall corrosion SAF2507 can be used in diluted hydrochloric acid environments and has strong resistance to spot damage and crack corrosion

2. Intergranular corrosion

The lower carbon content of nSAF 2507 greatly reduces the risk of carbide precipitation in the intergranular space during heat treatment. Therefore, this alloy has strong resistance to intergranular corrosion related to carbides

3. Stress corrosion cracking

The complex structure of SAF 2507 gives it strong resistance to stress corrosion cracking. Due to its high alloy content, the corrosion resistance and strength of SAF 2507 are better than 2205

Cracks are almost inevitable in construction and other aspects, which makes stainless steel more susceptible to corrosion in chloride environments SAF 2507 has strong resistance to crack corrosion The equivalent corrosion curve of SAF 2507 in sulfuric acid containing 2000ppm chloride ions is 0.1 mm/year; The equal corrosion curve in hydrochloric acid is 0.1 mm/year

Mechanical characteristics: SAF 2507 has high compressive strength, impact strength, low coefficient of thermal expansion, and high thermal conductivity. These characteristics are applicable to many structural and mechanical components SAF 2507 has high impact strength and should not be placed in temperatures above 570 ° F for a long time, as this may weaken its toughness. Tensile strength: $\sigma_B \geq 730\text{Mpa}$; Elongation rate: $\delta \geq 20\%$

Supporting welding materials: ER2594 welding wire, E2594 welding rod

Our one-stop processing services include:

Cross Shear



Longitudinal shear



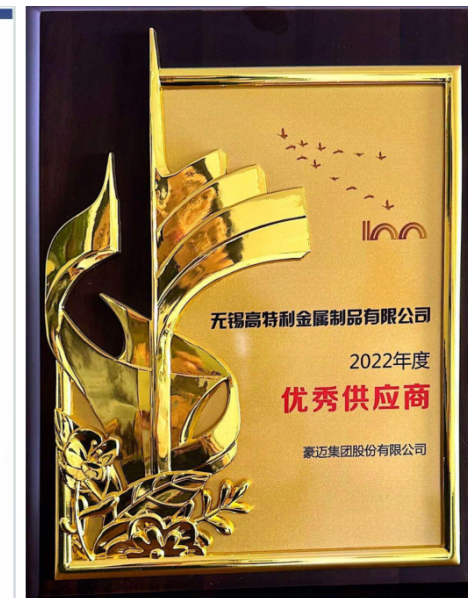
Surface grinding



Forming processing



Qualification & honor



Sincerity Honesty Innovation Customer focus

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