Ankara Alüminyum
ve Metal San. Tic. Ltd. Şti.

www.ankarametal.com.tr

Your Metal Market...

About Us

Aluminum and Metal ind.trade.co.ltd. has been operating in the metal sector since 1988 and has become the leader cooperation of the sector in the recent years with its wide range of products, fair pricing, technical information support and fast delivery service.

Our Corporation has been serving as a metal center by keeping several Aluminum and Brass materials together in proper conditions, where customers obtain these materials and technical support from one single point.

Our product range comprises;
Stainless plate, roll, bar, sheet bar, angle, pipe, profile types, aluminum alloy plate, bar, roll, pipe, special industry profiles, foil types, brass bar, plate, sheet bar, square, tape types, copper pipe, bar, wire, tape, plate types, bronze plate, wire, bar types, pig tin and bar, polyamide plate and bar, Teflon plate and bar, castermid plate and bar, spring loaded steel belt, brass, silver and aluminum welding wires.

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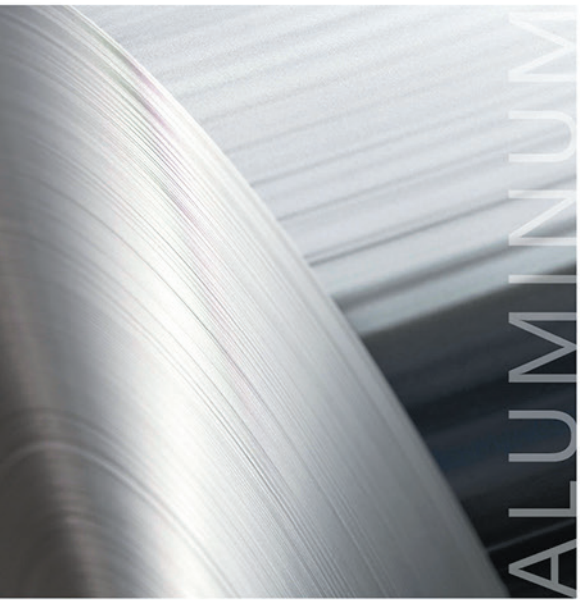
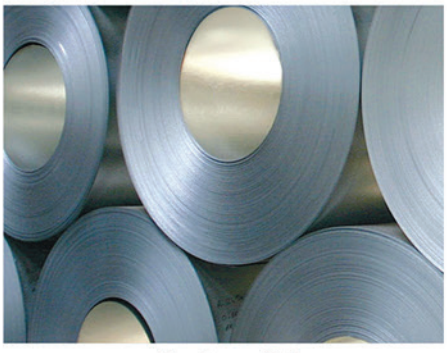


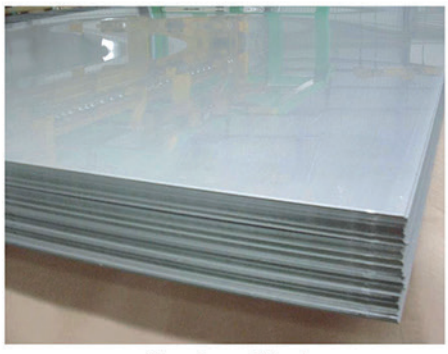
Aluminum is a soft and light metal with dull silver colour. This colour is a result of thin oxide layer formed on when aluminum is exposed to air. Aluminum is not toxic and magnetic, and it does not sparkle.

Since aluminum becomes cold easily and have a heat-absorbing feature, it is widely used in cooling industry. Aluminum is used in various sectors since it is cheaper and be found more than copper, easy to process and soft.

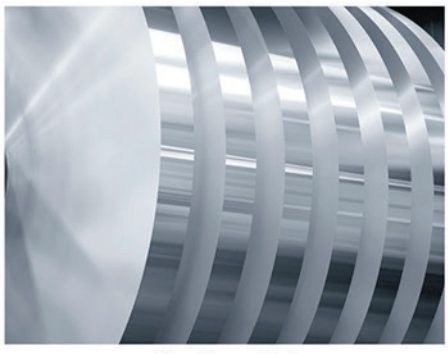
Aluminum is generally used in production of coolers, spotlights, kitchen tools and vehicles that need to be light (plane, bicycle, car engines, motorcycles, etc.). Besides aluminum is an important material in industry, it is also widely used in daily life.



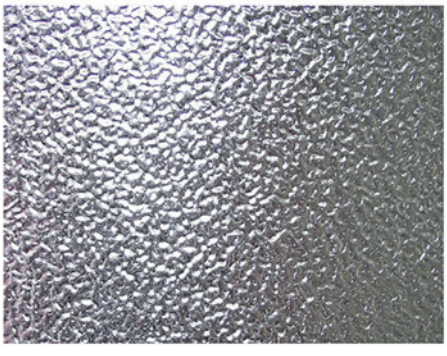
Aluminum Roll



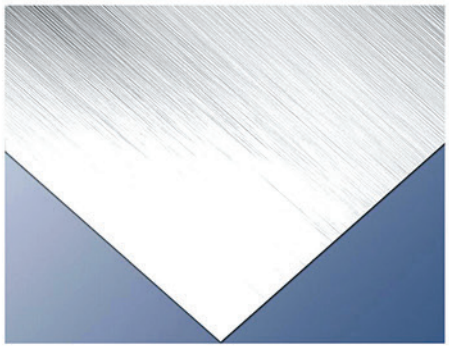
Aluminum Sheet



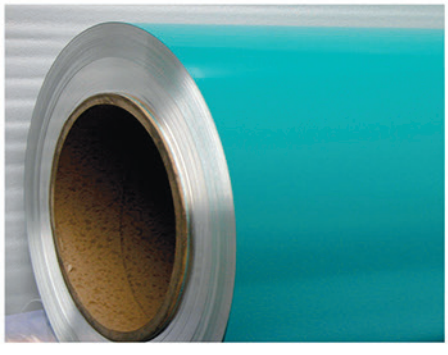
Aluminum Strip



Aluminum Embossed Roll-Sheet



Aluminum Anodized Sheet



Aluminum Painted Roll, Sheet

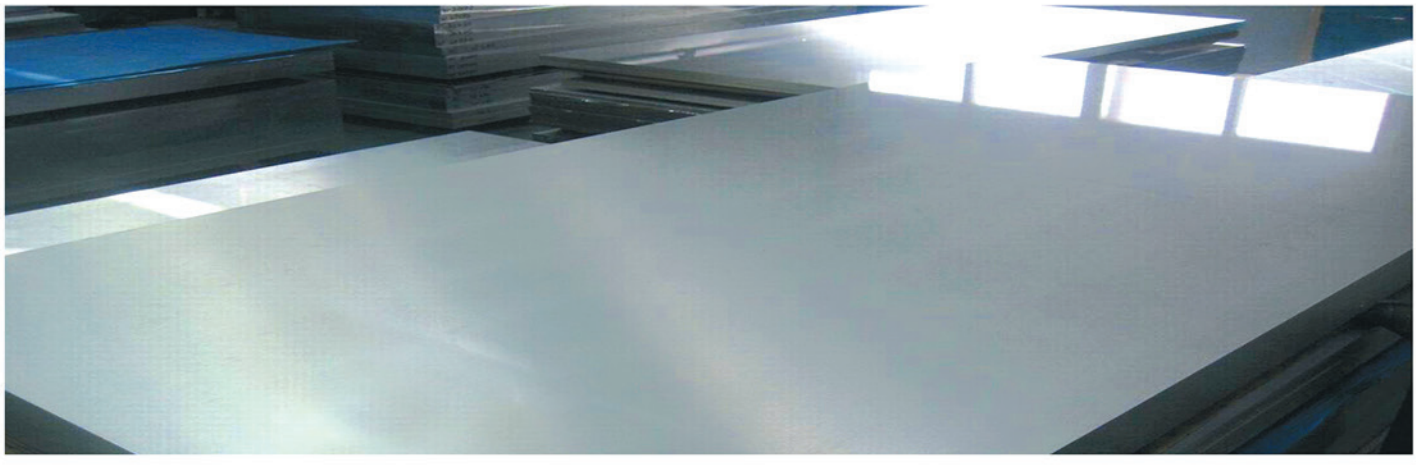
Aluminum Alloys

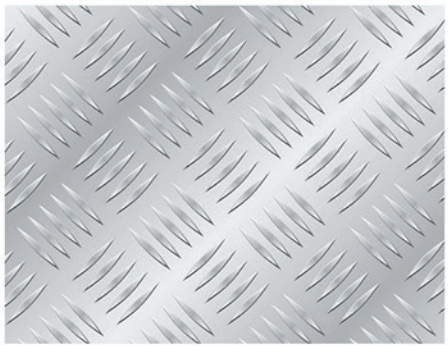
Alloy	Main Element	Effect of Main Element
1000A	None	High corrosion resistance, low resistance, good conductivity
2000A	Copper	Resistance, hardness and processability, can be hardened with heat treatment
3000A	Manganese	Medium resistance, good processability level
5000A	Magnesium	Medium and good resistance, good processability level
6000A	Magnesium-Silicon	Moldable, corrosion resistance, high resistance
7000A	Zinc	Very high resistance, can be hardened with heat treatment

1000, 3000, 5000 and 6000 series alloys have good weldability level and corrosion resistance. 2000 and 7000 series alloys have higher resistance and processability but lower weldability and corrosion resistance.

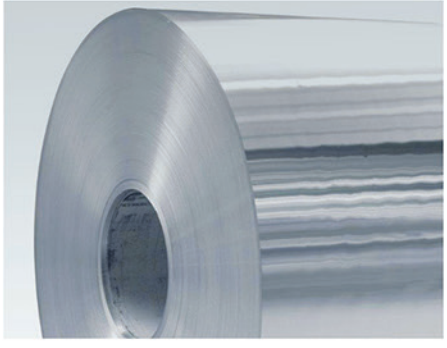
General properties of aluminum:

- Aluminum is a light metal. Having one third of weight when compared to same volume of steel material.
- Aluminum resists to bad weather conditions, foods and various fluid and gases that are being used in the daily life.
- Aluminum has high reflecting ability. Silver white colour not only contributes this ability but also makes aluminum attractive for both interior and outer decoration. Glory of aluminum can be maintained long times with implementations such as anodic oxidation (eloxal), lacquer materials, etc. Moreover, natural oxide layer shall be enough for several applications.
- Resistance of various aluminum alloys are equal or more than resistance of normal structure steel.
- Aluminum is an elastic material therefore durable to sudden impacts. Besides, its durability does not decrease with low temperatures. (Sudden impact resistance of steel decreases due to low temperatures.)
- Aluminum is an easily processed metal, such that can be processed to foil or wire having thickness less than l/100 mm.
- Aluminum is as conductive as copper in terms of heat and electricity.
- In order to form aluminum; methods such as casting, hammering, benching, pressing, extrusion and rolling can be applied.

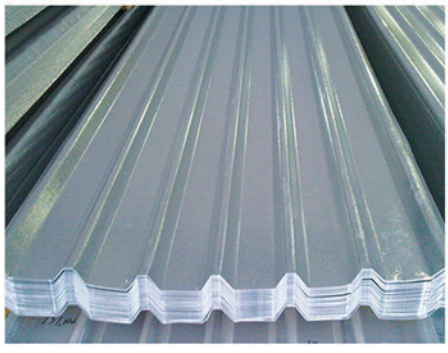




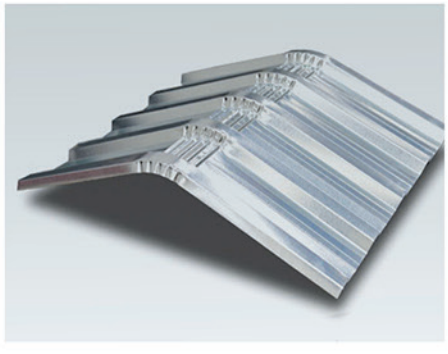
Aluminum Tread Sheet



Aluminum Roll

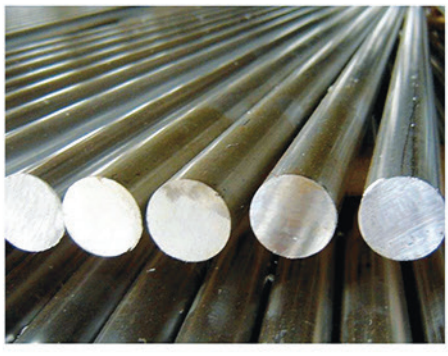


Aluminum Trapeze



Aluminum Ridge

Aluminum Bar



Aluminum Alloyed Bar

Stainless steels are commonly used and focused type of steel in steel sector and there are various qualities and standards.

Generally they comprise 10%-25% Cr (Chrome). Chrome generates chromium oxide layer and prevent material from oxidation. This chromium oxide layer is formed with very thin film and does not negatively affect mechanical properties of the material.

Besides; Nickel (Ni) used as an alloy element provides good corrosion resistance.

Stainless steels are important materials that are being used nearly all industrial areas.

STAINLESS PLATE-ROLL TYPES

201 - 202: These products are preferred due to both their high mechanical and corrosion resistance and charming prices. These products are frequently used in automobile centre caps, window frames, doors, hinge elements, washbasin, kitchen and restaurant equipments, ovens, fridges, process areas of food – liquid, milk and dairy products.

303: These are also referred as automat of stainless steel. Due to the contained sulfide, such quality materials have high processability. On the other hand, sulfide reduces corrosion resistance of the material. Therefore, corrosion resistance of the material is lower than 304 quality materials.

304: This is one of the most commonly used stainless steel quality. This quality is proffered due to good price/performance ratio of its chemical compounds, mechanical properties, weldability and corrosion-oxidation resistance. Its low temperature properties and response to process hardening is excellent. This quality provides high oxidation resistance up to 600 – 650 degrees. This is used in chemical, petrochemical, food, kitchen, automotive industry, all kinds of sanitary installation material, health industry, elevator car implementations and all kinds of decoration works.

304L: Comprises less carbon and more nickel compared to 304 quality stainless steels. When compared to the 304 quality stainless steels, processability is more difficult and mechanical properties are lower.

316: This quality is obtained by adding Nickel (Ni) and Molybdenum (Mo). Corrosion resistance of this quality is quite high even in severe conditions (sea water, acidic liquids, etc.) due to ingredients comprised. Breaking strength is also in higher level when compared to the 304 quality material. Oxidation resistance, mechanical and ultimate strength is high up to 850 degrees. This quality stainless steel is used in steam boilers used in chemical, petrochemical and food industry, and processing units in juice-liquor production, textile machines and meat packing units.

316L: This quality is similar to 316 quality stainless steel but comprises less carbon and does not require heat treatment after welding. Welded parts have corrosion risk due to heating and its proper to use this quality stainless steel for such purposes.

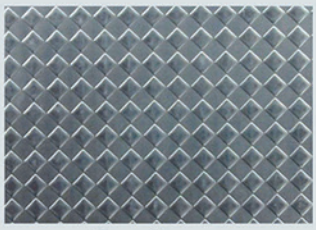
316TI: Approximately 0.5% Titanium (Ti) is included in this stainless steel quality. If material shall be exposed to 550 – 800° C high temperature for a long time 316Ti quality stainless steel should be used.

321: Oxidation resistance of this quality is high for high temperatures up to 900°C. Has good mechanical and frictional resistance. Is used in printing knives, exhausts, salt machines, chemical and petrochemical industries.

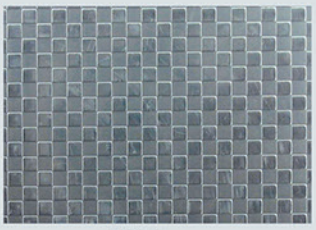
420: Most significant feature of this quality is high tensile strength. This material has good corrosion resistance in normal conditions and has good processability when heat-treated.

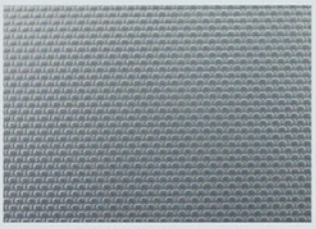
430: This quality is included in ferritic class comprises chrome and less carbon. Weldability of these stainless steels is limited. 430 quality stainless steels are cheaper than 300 series stainless steels since they do not comprise Nickel (NI) and Molybdenum (MO). Stainless steels of this quality provide good surface appearance and magnetization can be performed since they do not comprise nickel. Oxidation resistance is high up to 550°C – 600°C. 430 quality stainless steels are used in moisture-free conditions, automobile accessories, machine accessories and decorative purposes.

Patterned Stainless Sheets

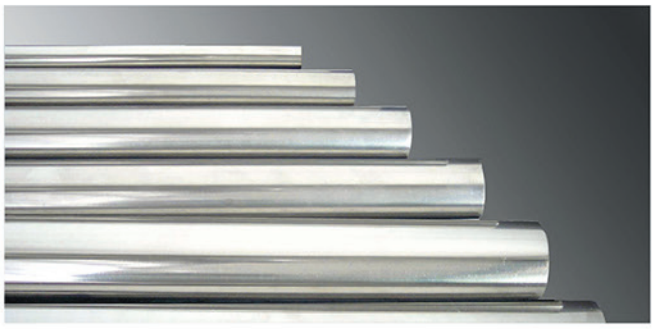

Cross Square


Leather Patterned

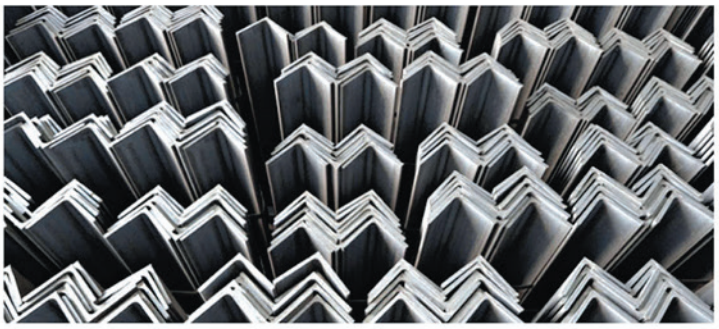

Flat Square


Point Patterned

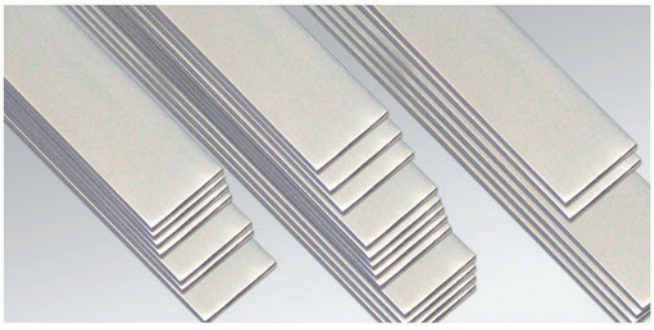
STAINLESS BAR - BRACKET - FLAT - HEXAGON - SQUARE – WIRE CLOTH- FITTINGS – WIRE



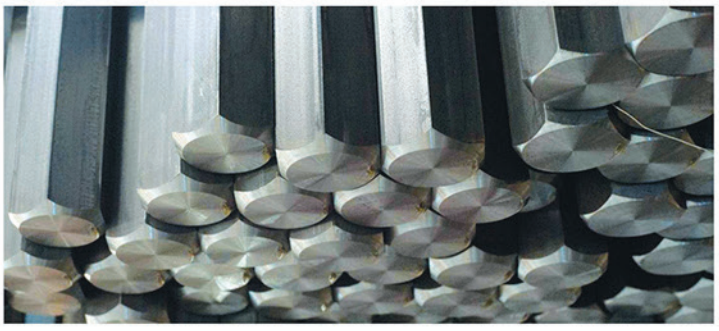
STAINLESS BAR
These are available in 201,202, 303, 304, 304L, 309, 309S, 310, 310S, 316, 316L, 316TI, 409, 420, 430 qualities and from Ø2,00 mm to Ø400,00 mm.



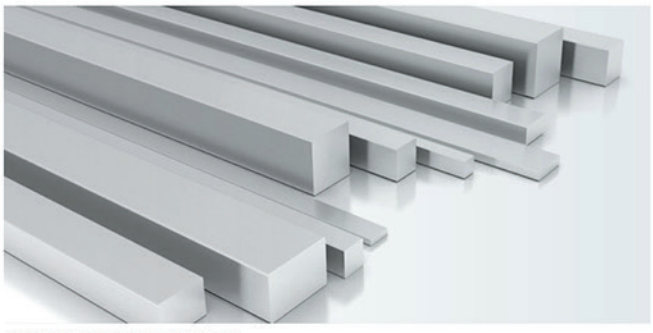
STAINLESS BRACKET
304 quality stainless brackets can be found in our stocks in various measures and thickness



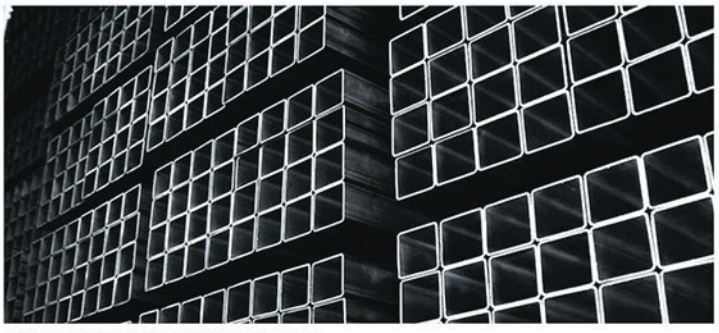
STAINLESS FLAT
304 quality stainless flats can be found in our stocks in various measures and thickness.



STAINLESS HEXAGON
Stainless hexagons can be found in our stocks in various measures and thickness.



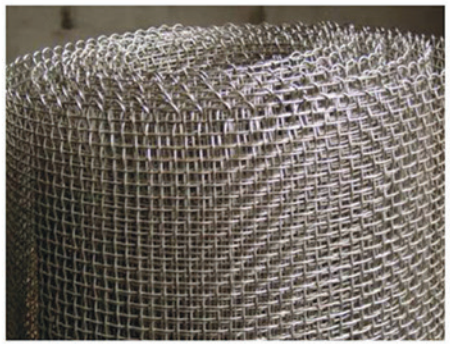
STAINLESS SQUARE
Stainless squares can be found in our stocks in various qualities, measures and thickness.



STAINLESS BOX PROFILE
Stainless box profiles can be found in our stocks in various qualities, measures and thickness.

STAINLESS FITTINGS
Stainless fittings can be provided upon demand and also are available in our stocks

STAINLESS WIRE
Stainless wires can be found in our stocks in various qualities and diameters.



STAINLESS STEEL WIRE CLOTH
Stainless steel wire cloth can be found in our stocks in various qualities and diameters.

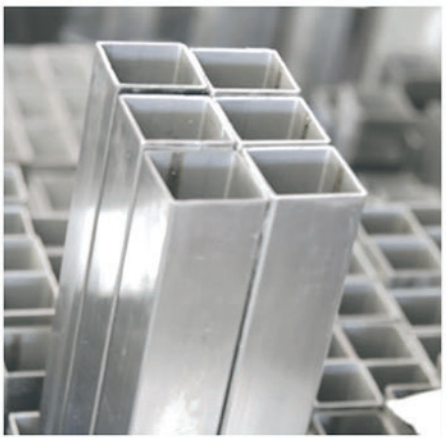
STAINLESS TUBE-PROFILE

STAINLESS SEAMED-SEAMLESS TUBES (AMERICAN-EUROPE NORM)

Standart	: 10217-7 (DIN 17457)
Quality	: 304-304L-316-316L 316 TI-309-310
Outer diameter	: 6mm - 406mm
Thickness	: 1mm - 5mm
Weld	: TIG

STAINLESS POLISHED-SATINETTE DECORATION TUBES

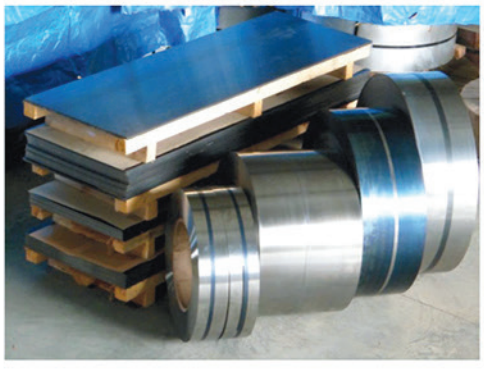
Standart	: ASTM A 554
Quality	: 304-316-439-441
Outer diameter	: 6mm -114.3mm
Thickness	: 1mm-5mm
Weld	: TIG



STAINLESS POLISHED SATINETTE BOX PROFILE

Standart	: ASTM A 554
Quality	: 304-316-439-441
Outer diameter	: 10X10mm -200X200mm 20X10mm-200X100mm
Thickness	: 1mm-5mm
Weld	: HF

STAINLESS SPRING STEEL



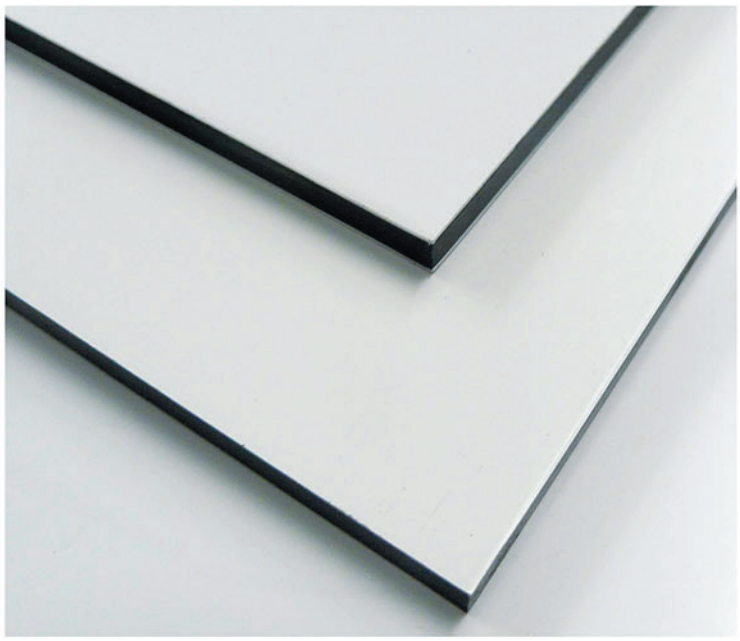
SPRING STEEL
C75 STEELS
CK67 STEELS
50CrV4 HEAT RESISTING STEEL

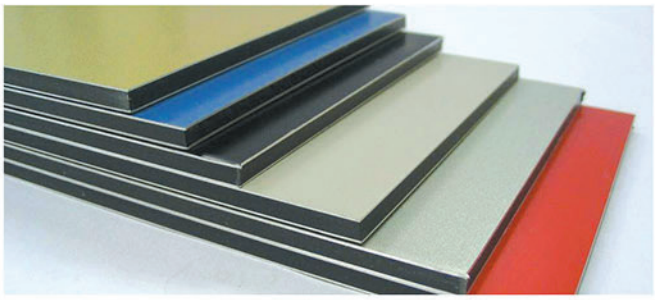
STAINLESS SPRING STEEL
C75 STEELS 0,10 mm ^^ 4,10 mm
CK67 STEELS 0,10 mm ^^ 5,00 mm
AISI 301 STAINLESS 0,05 mm ^^ 2,00 mm

ALUMINUM COMPOSITE PANELS

Aluminum composite panel is interior and exterior structure material that comprises combination of low density polyethylene material placed between two aluminum sheets. Some of the usage areas are as follows;

- Internal and external wall applications,
- Trade, business-shopping centers, shops,
- Bank and hotel frontal applications,
- Airports, railway stations, bus terminals,
- Tunnel - Metro stations internal surface coatings,
- Stadium and sports complex applications,
- Restoration applications,
- All kinds of balcony decoration applications,
- All kinds of column – joist coating applications,
- Eaves, Ceiling coating applications,
- Office applications,
- Advertising and notice board design and applications,
- Fuel stations,
- Bus, metro stations,
- Exhibition fair centers and stand applications,
- All kinds of sign, direction plates,
- Moving stairs, elevators.





Properties of Composite Panel

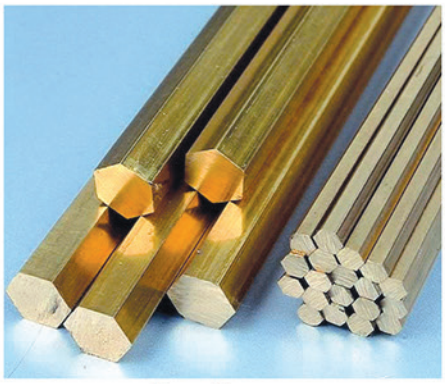
Product Thickness	2-6 mm
Product Width	1000 - 1250 - 1500 mm
Product Height	Standard 3200 mm, special measures up to 6000 mm

Thickness	± 0.2 mm
Width	0 / + 2 mm
Height	0 / + 2 mm
Diagonal	Max. 3 mm

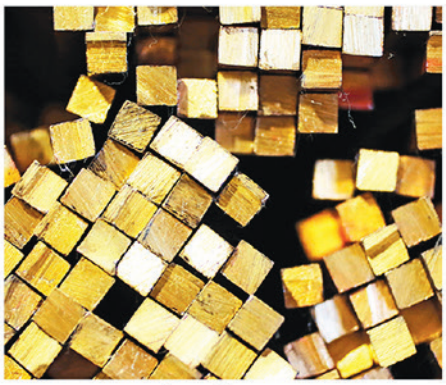
Colour	Various Colors
For Exterior	PVDF painted sheets
For Interior	Polyester painted sheets

BRASS BAR - HEXAGON – SQUARE AND SHEET

Brass Bar



Brass Hexagon

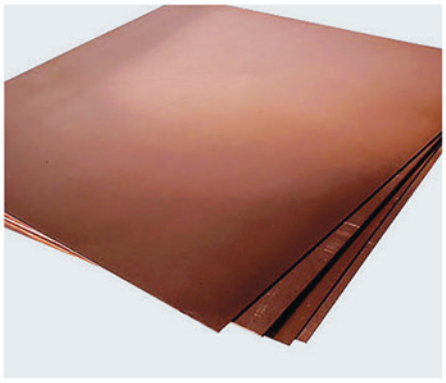


Brass Square

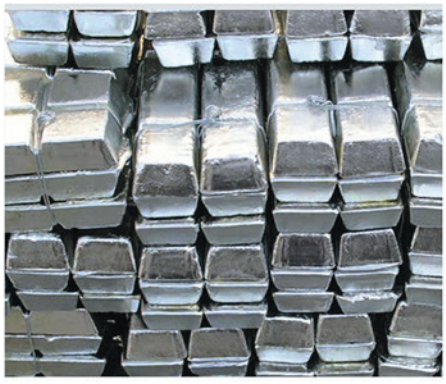
OTHER SEMIPRECIOUS METALS

Bronze

Zinc

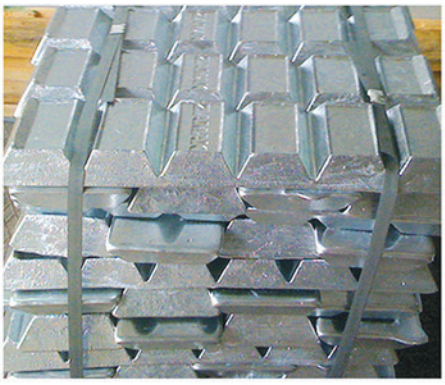


Copper



Lead

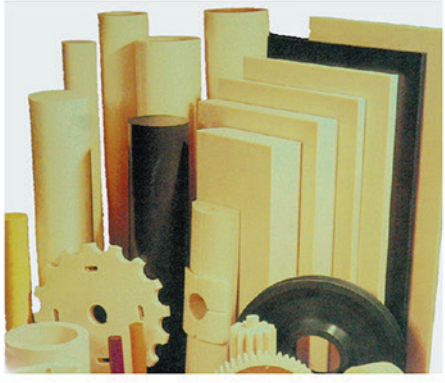
Tin



Zamak

INDUSTRY PLASTICS

Castermid - Polyamid - Polyethylene- Polikes - Polypropylene- Politef - Polipom - Composite



Castermid

Polyamid

Polyethylene

Ankara Alüminyum
ve Metal San. Tic. Ltd. Şti.

Abdülkadir Geylani Cd. No: 8 Ostim - Ankara / TÜRKİYE
Tel: +90 312 385 50 46 (3 hat) Fax: +90 312 385 41 46
www.ankarametal.com.tr • bilgi@ankarametal.com.tr

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