



## Steel flat products

### Hot Rolled Coil (HRC)

Hot rolled coil is rolled on a hot strip mill from slabs. It can be found on the market in coil or sheet form and is further processed into finished products by the manufacturer. Hot rolled coil is typically 2-25mm thick and up to 2,250mm wide.

Hot rolled coil is produced as a feedstock for cold rolled coil and coated coil, but also for direct use in a variety of industrial applications including steel tubes used in transport, construction, shipbuilding, gas containers, pressure vessels and energy pipelines. Hot rolled sheet with an anti-slip surface and a diamond or teardrop pattern is typically used for stairs, industrial floors and tailboards for goods vehicles.

### Cold Rolled Coil (CRC)

Cold rolled steel is a 'flat' steel product. The material is manufactured from hot rolled steel, the thickness of which is further reduced on a strip mill without the use of heat. The resulting thinner and flatter material is known as cold rolled steel. Typical thickness is from 0.15 to 3 mm. Typical width is from 600 to 2,100 mm.

Finished cold rolled steel coil has excellent forming properties, electromagnetic properties, paintability and weldability. It is suitable for fabrication by forming, pressing and bending. Applications include domestic applications, automotive manufacturing, lighting fixtures, electrical components (stators, rotors), various kinds of sections, roofing applications, profiled sheets, and wall elements.

### Hot Dipped Galvanised Coil / Sheet

Obtained by passing cold rolled coil through a molten zinc bath, in order to coat the steel with a thin layer of zinc to provide corrosion resistance. Hot dipped galvanized coil can be found on the market in coil or in sheets and is further processed into finished products by the manufacturer. Typical thickness is from 0.3 to 3 mm. Typical width is from 600 to 2,100 mm.

Hot dipped galvanized coil has excellent forming properties and is suitable for fabrication by forming, pressing and bending. Applications include domestic appliances, building applications (e.g. wall elements, roofing, automotive parts (e.g. underbody), lighting fixtures, drums and various kinds of sections and profiled sheets. 1/2

### Hot Rolled Plate

Hot rolled plate is produced by hot rolling a steel slab to form a plate. Typical thickness is between from 2 to 20 mm. and maximum width is 1860 mm.

The material is used in the shipbuilding, pressure equipment and construction industries.

### Cold Rolled Sheet

Flat rolled products for which the required final thickness has been obtained by rolling at room temperature. To meet the various end use requirements, cold-rolled sheet products are metallurgically designed to provide specific attributes such as high formability, deep drawability, high strength, high dent resistance, good magnetic properties, enamelability and paintability.

Cold rolled steel sheet is used in a wide variety of end applications such as appliances refrigerators, washers, dryers and other small appliances, automobiles - exposed as well as unexposed parts - electric motors, and bathtubs.

### Tin Plate

Tinplate is cold reduced steel sheet coated with a thin layer of tin. Tin mill products are produced in a variety of types including electrolytic tinplate, electrolytic chromium coated steel and black plate, an uncoated product. It has good corrosion resistance and food compatibility – although many products require a thin coating of lacquer to maximise the shelf life of the contents.

Around 90% of tinplate is used in packaging, with food and drinks cans the biggest market, but it is also widely used for other consumer and general packaging, such as aerosols, paints and oils.

### Coated Sheet

Coating steel sheet improves durability and lengthens product life. It is manufactured to meet specific customer requirements for corrosion resistance, strength and formability. Thickness, width, surface quality and surface finish vary greatly.

The most typical applications are for metal roofing and automotive manufacturing.



## Coated Steel Coil

Color coated, or pre-painted, steel, is steel coil to which a paint, powder or film coating has been applied in a continuous process prior to it being cut and shaped. It provides a durable uniform surface finish, and can be an alternative to conventional post-manufacture painting of steel parts. The coil is coated on one or both sides. Rolls apply first a primer and then a topcoat to the moving steel strip. The substrate is usually cold reduced galvanised coil, but galvanised HRC and even uncoated coil is used. Building applications account for around two thirds of consumption, with cladding on steel frame buildings a well known use. It is also widely used for domestic appliance casings and for some furniture.