

Making strip steels work harder in consumer products

Corus has developed an unrivalled range of strip steels and services designed to help manufacturers of consumer products meet their commercial and production goals and stay ahead in this highly competitive market.



Products

Consumers expect an ever-changing variety of attractive, high quality products. And they want them more frequently and at the most competitive prices. Our specialist Strip Products Service Centres can supply advanced steels that can help you develop outstanding consumer products that not only look impressive, but perform to the highest standards.

Our pre-finished steels are available in a range of colours, finishes and special effects that enable designers to respond to consumer trends and create innovative, stylish products. The variety of durable, easy-to-maintain surfaces includes products with resistance to heat, scuffing, corrosion, detergents and other household substances. Using pre-finished steels also enables manufacturers to eliminate the costs of pre-treatment and post-painting, together with the environmental problems associated with these processes.

We can also supply a full range of cold reduced, hot-dip zinc, zinc-iron alloy and aluminium-silicon alloy coated strip, plus electro-galvanised material. In addition to standard grades, high and ultra high strength steels are available that make it possible to produce products that are far lighter, without compromising on strength, cost or performance.

Sustained investment in precision rolling and finishing technology, combined with demanding production and control processes, enables Corus to manufacture steels to extremely tight dimensional tolerances. Our materials provide the consistent mechanical properties, and improved surface quality and flatness demanded by today's high-speed production processes, and expected by the end-user. And, thanks to an unparalleled combination of strength and flexibility, they

can easily be pressed or roll formed into complex shapes.

As part of Corus we benefit from reliable supplies direct from the mill. In addition, we can source products from other leading metal producers if required.

Services

Corus Strip Products Service Centres are geared up to provide the highly responsive, flexible level of service which manufacturers need to succeed in today's fast-moving markets.

Our processing facilities enable us to supply material to exact size and shape; helping customers to optimise material usage and reduce costs, whilst improving productivity and quality.

For the cost-effective production of precision blanks, to a standard maximum length of 4000mm and a width tolerance of $\pm 0.25\text{mm}$, we have a number of multi-strand blanking lines. Flatness to within 3mm per metre length is guaranteed, provided this requirement is stated at the time of enquiry and order. Our centres also offer decoiling facilities, and the industry's most advanced high-speed slitting lines. These are capable of processing coil up to 2000mm wide in a gauge range of 0.12mm to 3.2mm, to a width tolerance of $\pm 0.127\text{mm}$. In addition, we have the capability to handle a wide range of secondary processing requirements for small, narrow blanks.

Our processing facilities are maintained to the highest standards to ensure that material quality, surface finish and flatness is assured from the mill, during processing, to delivery. Great care is also taken during handling, packaging and storage to ensure that products reach customers in prime condition.

These resources are supported by tailored EDI, IT and logistics systems that enable us to check order status or stock availability instantly, minimise order lead times and maintain a rapid, reliable deliveries, on a J-I-T or scheduled basis as required.

Technical support

Our technical experts work with customers from the development phase of projects to advise on material specification, processing and fabrication. This results in optimally-designed products that fulfil stringent quality, cost and performance parameters.

We can draw on the world-class resources of Corus Research, Development and Technology, which offers practical testing and evaluation facilities and expertise in key areas including finite element analysis, fabrication, corrosion, welding, adhesives and mechanical fixings.

In addition, specialised support for customers using, or wishing to use, pre-finished steels is available from the Product Development team at our Colors Service Centre, which can advise on product performance, selection and fabrication. Furthermore, Corus Colors' Centre of Excellence has expertise in steel and paint chemistry and product design, and can develop bespoke finishes, and colour match to OEM's specifications.

Product guide

Cold reduced products:

EN 10130:1999 Cold-rolled low carbon steel flat products for cold forming.

EN 10209:1996 Cold-rolled low carbon steel flat products for vitreous enamelling

Cold reduced high and ultra high strength steels. Branded grades with guaranteed minimum tensile properties, i.e. minimum yield strengths of 250 N/mm², 280 N/mm², 350 N/mm², 420 N/mm², 500 N/mm² and higher.

Electro-galvanised products:

EN 10152:1994 Specification for electrolytically zinc coated cold rolled steel sheet products.

All of the above products are supplied to tolerances as set down in EN 10131:1991

Hot-dip galvanised products:

EN 10142:2000 Continuously hot-dip zinc coated low carbon steel strip and sheet for cold forming.

EN 10147:2000 Continuously hot-dip zinc coated structural steel strip and sheet.

Branded extra and ultra high strength hot-dip galvanized steels are also available.

EN 10154:1996 Continuously hot-dip aluminium-silicon (AS) coated steel sheet and strip

EN 10214:1995 Continuously hot-dip zinc-aluminium (ZA) coated steel strip and sheet.

All of the hot-dip products are supplied to tolerances as set down in EN 10143:1993

Pre-finished steels:

Corus has developed three types of coating systems that can deliver a vast range of different colours, gloss levels, finishes, patterns and special effects, as well as specialised performance properties:

- Colorcoat is a liquid-applied paint system
- Stelvetite is a polymer-film laminate bonded to the steel substrate
- Colorstelve is a liquid-applied system, topped with a polymer-film laminate

Within these three types of coating, there are ranges of products that are designed for specific products.

For the manufacture of domestic appliances there is Colorcoat DA, Stelvetite DA and Colorstelve DA. This range has properties for all domestic appliance applications, including 'hot', 'cold', 'wet' and 'microwave'. Matching paint and laminate systems are available which allow two types of coating to be used together on the same appliance to accommodate different operating temperatures. This also means that appliances which use both types of pre-finished steel will match when used together in a kitchen.

For the manufacture of consumer electronics, there is

Colorcoat DS and Stelvetite DS. The DS (Dark Sensations) range has been developed specially for applications such as CD players, VCRs, Hi-Fi units, satellite TV receivers and other electronic enclosures.

A range of reverse-side coatings are offered, and formable substrates are available in metallic coated steels and cold reduced material, which can now be used in a greater number of applications.

Processing capacity

	Gauge (mm)	Width (mm)	Length (mm)
Multi-strand blanking	0.30 – 3.2	140 – 2000	200 - 4000
Circle blanking	0.40 – 1.2	425 – 650	N/A
Slitting	0.12 – 3.2	12 – 2000	N/A
Decoiling	0.30 – 3.2	50 – 2000	100 - 9000
Shearing	0.40 – 3.2	25 min	3000 max
Notching and piercing	Please consult Corus for details		
Polymer film coating	Please consult Corus for details		

For requirements outside of these dimensions please consult Corus.

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