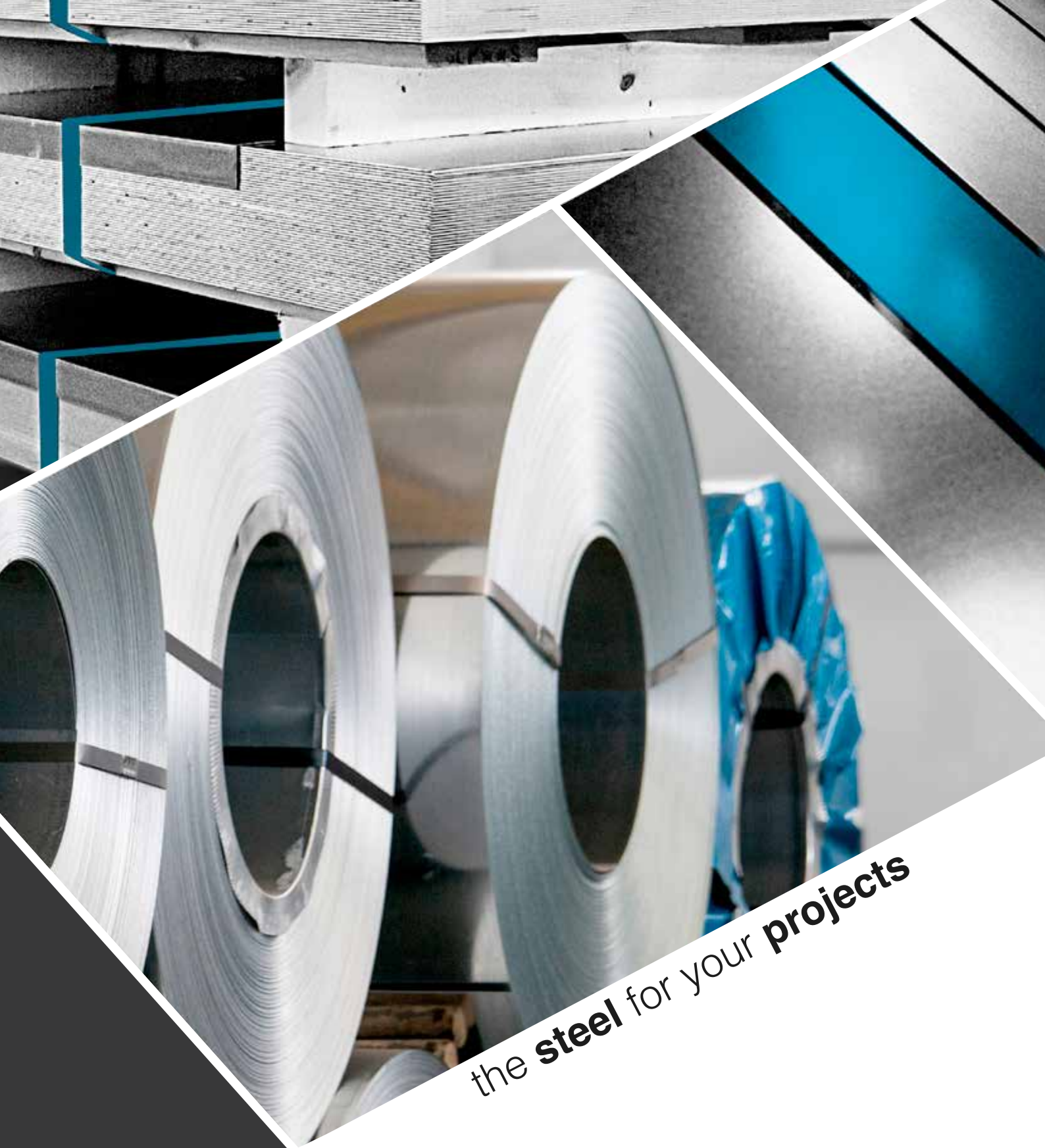

the **steel** for your **projects**

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steel service center

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EN

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	Coils			
Hot-rolled plates	Black hot-rolled	Pickled hot-rolled	Cold-rolled	Hot-dip galvanized
				
Structural	For cold forming	For cold forming	For cold drawing and bending	For cold drawing and bending
Hot rolled products for normalized weldable fine grain structural steels	Structural	Structural	Cold rolled steel with high strength low alloy for cold forming	Cold rolled steel with high strength low alloy for cold forming
Structural steel with improved atmospheric corrosion resistance	Structural steel with improved atmospheric corrosion resistance	Structural steel with improved atmospheric corrosion resistance	For vitreous enameling	For structural purpose
Hot rolled products of high strength structural steels in the quenched and tempered conditions	Floor plates with Diamond and teardrop pattern	High yield strength steels(HSLA) for cold forming		Dual phase
Steels for simple pressure vessel	High yield strenghth steels (HSLA) for cold forming	Steels for quenching and tempering		
Steel for pressure purposes with elevated temperature properties	Steels for simple pressure vessel	Steels for simple pressure vessel		
Steels for pressure purposes,weldable fine grains steel and normalized	Steels for quenching and tempering	Steels for pressure purposes with elevated temperature properties		
Wear plates	Steels for pressure purposes with elevated temperature properties	Steels for pressure purposes,weldable fine grain steels and normalized		
	Steels for pressure purposes,weldable fine grain steels and normalized	Steels for welded gas cylinders		
	Steels for welded gas cylinders			
Metalsider steel service center	Metalsider steel service center	Metalsider steel service center	Metalsider steel service center	
		SIDERMED steel service center	SIDERMED steel service center	SIDERMED steel service center
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	Coils			
Electrogalvanized	Aluminized	Aluzinc®	Pre-painted	Pre-coated
				
For cold forming	For cold forming	For cold drawing and bending		
Cold rolled steel with high strength low alloy for cold forming	Structural	High strength		
SIDERMED steel service center	SIDERMED steel service center	SIDERMED steel service center	SIDERMED steel service center	SIDERMED steel service center
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Finmasi Group

Finmasi is the holding company established by Marcello Masi, including several companies performing in different industrial and service sectors since 1961.

Marcello Masi, is the driving force and reference point for the whole Group. He is an industrial businessman born in Bologna, who started his entrepreneurial activity in the territory of Modena, a town which has become the centre of FinMasi Group activities throughout the years.
As a first generation entrepreneur, Marcello Masi worked from the very beginning with high personal commitment, passion and excellent results for the development not only of his own companies, but also of the entrepreneurial activity in general.
Despite starting in a condition of proud and dignified poverty which was typical of the Italian society at the time, with courage and initiative, Marcello Masi was able to create value for his companies and for all those working in and with them.

First of all, the companies of the Group must always pay attention to their Customers' needs, constantly struggling to meet them with a proactive approach, offering products and services tailored to their demands.
Each company offers a wide range of cutting-edge solutions thanks to competences and professionalism acquired in decades of working experience, qualities which have been renewed with constant passion.

Professionalism, competence, passion, initiative, courage and continuous improvement are the values which daily drive and inspire our employees and collaborators to improve their performances, to attain and constantly keep a high level of excellence.

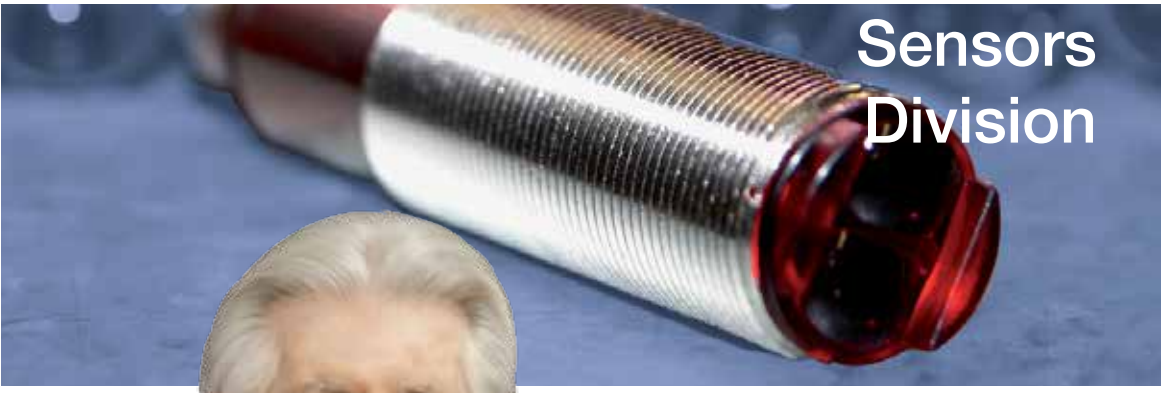
Today, Finmasi offices are in Modena, where Metalsider S.p.A. originally started its activity and where other companies belonging to Finmasi are located.
Throughout the years, acquiring and establishing new companies, the Group has extended its business horizon to the sectors of electronics, services and hotel industry.

Today, Finmasi Group is more than ever a well-established reference point and it aims at developing its international business in the globalized market, going far beyond Italian national borders towards Europe and the new emerging markets.

- 1961: Metalsider S.p.A., service centre for hot-rolled and pickled steel flat products, is established in the Modena province; the company is re-located in the harbour area of Ravenna in 1971.
- 1984: Sidermed S.p.A., service centre for cold-rolled, coated and pre-painted steel products, is established in Mordano, in the Bologna province.
- 1985: Hotel executive S.r.l. is established. The company has created the first 4-star-hotel in the Modena ceramic district, located in Fiorano Modenese.
- 1995: M.D. Microdetectors S.p.A. is acquired by Finmasi Group. The company was originally established in 1971 and specialized in the production of sensors for industrial applications.
- 1991: M.D. creates Spanish branch in Barcelona under the name Diell Ibérica (now Micro Detectors Ibérica).
- 1995-1998: the company Laier S.r.l., located in Modena, and, later on, the company Cistel S.r.l., located in Genoa, are acquired.
- The two companies are then merged to create Cistelaier S.p.A., specializing in the manufacturing of highly technological printed circuit boards with production sites in Genoa and Modena.
- 2011: the French company Techci Rhône-Alpes SA is acquired. The company specializes in the manufacturing of highly technological printed circuit boards and it is located in Saint-Genix-sur-Guiers (France).
- 2012: M.D. Micro Detectors (Tianjin) Co., LTD. Is established in Tianjin (People's Republic of China).

Metalsider steel service center

SIDERMED steel service center



Micro Detectors
Italian Sensors Technology

CISTELAIER

Techci Rhône-Alpes

executive hotel ★★★★

sanvitale trasporti & spedizioni s.r.l.

Steel Division

Finmasi Group clearly focuses on the idea of 'service' and fully implements that concept in its "Steel Division". Its companies Metalsider and Sidermed offer customers a wide range of top-quality flat rolled carbon steel products.

Metalsider is specialized in hot-rolled black and pickled coils as well as in heavy plates, whereas Sidermed focuses on cold-rolled, galvanised, electro-galvanised, aluzinc, aluminized, pre-painted and plastic-coated flat steel products.

One of the major strengths of these companies is their highly professional sales'network performing on both the Italian and the European market.

A tight-knit, motivated and competent team daily supports customers offering them the best solutions for their needs. Thank to partnerships with the main steel producers in Italy, Europe and worldwide, both service centers can supply the widest range of top-quality products. Research and Development activities are constantly carried out to meet more and more complex customers' requirements, in cooperation with the main suppliers of both raw materials and machines.

Modern cutting machineries are installed in Metalsider and Sidermed plants for the manufacturing of sheets, strips, blanks and sheared sheets in different sizes, weights, with different kinds of packing, according to different certifications in order to meet customers' specific requirements.

Finmasi Group always pays much attention to work safety. Therefore, all manufacturing processes are carried out according to the highest standards. Environmental protection is also very important; big investments in reneable energies are made through the green steel project to be able to produce in an environmentally safe way.

The highest quality of each single coil and finished products is guaranteed by the work of our internal laboratories which can carry out all sorts of chemical, mechanical, metallographic and aptitude test with personnel specifically trained during high-level seminars. Every single step of each manufacturing process is accurately tracked and recorded according to ISO 9001 Quality norms.

Logistics is also key to providing customers with the best service. Both plants are located in the heart of the Italian metalworking district, a region with the highest steel demand in Italy. Based in Ravenna harbour, a few hundred meters from the unloading docks, Metalsider is the ideal partner for the main steel producers worldwide.

Sidermed is located in Mordano, near Bologna, right next to A14 highway exit, a crossroads for North, Center and South of Italy.

Passion, competence, reliability, accuracy and constant research are the values shared by all members of Metalsider and Sidermed teams. Based on these values, we have spent over fifty years beside our customers and we will continue to build our exciting entrepreneurial future.

Metalsider®
steel service center

Via Piomboni, 3 - 48122 - Ravenna
Iscrizione al Registro delle Imprese:
n. 01937650362
Capitale Sociale: € 7.862.400,00
P.I.V.A.: n. IT01136730395
C.F.: n. 01937650362

www.metalsider.it

SIDERMED
steel service center

Via dell'Artigianato, 25 - Mordano (BO)
Iscrizione al Registro delle Imprese:
n. 02451530378
Capitale Sociale: € 750.000,00
P.I.V.A.: n. IT00579101205
C.F.: n. 02451530378

www.sidermed.it

Metalsider S.p.A. - Ravenna

Metalsider S.p.A. is a leading Italian service center for the processing of flat carbon steel products of different kinds: hot rolled, pickled and oiled, cold-rolled and heavy plates. Established by Marcello Masi, current Company's President, Metalsider started its activity in Ubersetto di Fiorano (near Modena) in 1961, then moved to the new industrial harbour in Ravenna, where its factory is currently located on a 50.000 sqm area with over 30.000 sqm of surface covered by manufacturing site and warehouse of raw materials and finished products.
The choice of Ravenna harbour as location for the factory has come out to be very positive and strategic and it has allowed Metalsider to grow and become one of the most important private-owned steel service centers in Italy.

To Metalsider, being a steel service centers means having customers as main focus of its activity, providing them with steel sheets, strips, blanks and sheared sheets and supporting their business with best quality and just-in-time deliveries.
In over 50 years of industrial activity, Metalsider has been able to develop strong strategic partnerships with the best international suppliers of steel manufacturers, thus guaranteeing continuity, quality, wide range of products and innovation. All these values are one of the main strengths of the company.
Metalsider product range is one of the widest in the market, including: black, pickled and cold-rolled coils for laser cutting, stamping, structural use, high yield steel for cold forming. wear-resistant steel, non-corrosive steel for quenching and tampering, for tanks and pressure vessels.
Metalsider also offers heavy plates of different kinds, such as structural steel, wear-resistant plates and high yield steel for cold forming as well as steel for boilers.
A policy of continuous investments has allowed to work with leading-edge equipment, thus combining innovation and efficiency in cutting processes, as well as in each manufacturing step. Metalsider boasts following best-performing production lines – supplied by the best constructors worldwide – for coil processing:

- Cut to length lines for steel sheets from 1 to 25 mm thickness, up to 2,150 mm width and up to 18,000 mm length;
- Slitting lines of steel strips from 0.8 to 15 mm thickness and from 20 to 2,150 mm width;
- Blanking machines for the manufacturing of blanks and sheared sheets of any size;
- Oxygen-cutting machine for heavy plates.

Each manufacturing process is strictly controlled providing our customers with products having low tolerance values in terms of dimensions, cutting, flatness, squareness and edge cam-

ber. The brushing and suction systems installed on all of our cutting equipments improve the surface quality of Metalsider products which are therefore particularly suitable for all customers applications.
Our sales' team supports customers with a highly professional attitude, competence and passion, finding the best solution for any application.

Our products are suitable for a wide range of purpose: sheet processing, light and heavy carpentry, shelving, production of gratings, metal furnishings, tubes and poles for telecommunication and energy transport. Our products can also be used in the automotive industry, for the production of earthmoving equipment, agricultural machinery, trailers and industrial vehicles, tanks and pressure vessels.

Efficiency goes hand in hand with Quality. Over 20 years ago Metalsider was among the first companies in the steel sector to be awarded ISO 9001 certification by RINA certification body, thus meeting all market requirements. Metalsider can provide test results for all materials according to main RINA, ABS, BV, DNV, Lloyd's Register norms and following technical specifications of railway and civil transport. Attention for quality (starting from our partners, that we carefully select among the best-perfoming steel mills worldwide) and accuracy of our manufacturing processes, machineries and finished products are key to our success.

Our laboratories are equipped with cutting-edge instruments for chemical and mechanical test of materials. A highly qualified technical staff daily supports our customers to choose the best materials for specific applications.

Metalsider's strengths are:

- professionalism and technical competence developed in over 50 years of activity
- commitment, passion and reliability at the service of customers
- quality and high-level service
- wide range of products available
- technological level of plants and equipments
- logistically strategic location.

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steel service center

Sidermed S.p.A. - Imola

Sidermed S.p.A. is a service center for flat steel products. It was established in 1984 by the will of its founding partner Marcello Masi as an authentic expression of his entrepreneurial spirit.
Its activities are performed in a 14,000 sqm-wide plant which is located in an area of over 23,000 sqm.
Mordano di Imola (in the province of Bologna), only 6 km far from A14 highway and 40 km far from Ravenna industrial harbour has proved to be a well chosen location according to the logistic point of view. In fact, the company is located in the heart of one of the most important industrial district in Italy – the regions Emilia, Lombardia, Veneto and Marche, an area with an extremely high density of industrial activities.

The taste for challenge, the commitment, the passion and the entrepreneurial skills of its founding partner and all of its co-workers allowed Sidermed to grow and become a highly performing company from all points of view. Today, the company boasts a yearly production capacity of over 150.000 tons.

Sidermed S.p.A. can offer an extremely wide range of steel products: flat, pickled, cold-rolled, electro-galvanised, hot-dip galvanized, aluminized, aluzinc, pre-painted, plastic-coated and colaminated, made of either structural, deep drawing or high yield steel for cold forming.
The company is equipped with cutting-edge machineries:

- Slitting lines for strips from 0.25 to 6 mm thickness and from 15 to 1,800 mm width.
- Cut to length lines for sheets from 0.3 to 6 mm thickness, up to 2,000 mm width and up to 12 m length.
- Blanking machines for the manufacturing of tailored blanks and sheared sheets from 0.3 to 3 mm thickness, from 70 to 1,500 mm width and up to 3,000 mm length.

All equipments are carefully controlled by our qualified maintenance personnel in order to guarantee the highest possible efficiency, cutting quality, flatness, squareness and edge camber. Such production features are essential in order to meet customers' strictest requirements.

All manufacturing processes are controlled, registered and certified in order to guarantee highly qualified products in compliance with ISO 9001 norm. In its laboratory, equipped with leading edge machineries for chemical, mechanical, metallographic and aptitude tests on materials, Sidermed can test each product at each stage of the manufacturing process.

Our sales' network covers every part of Italy, Central Europe

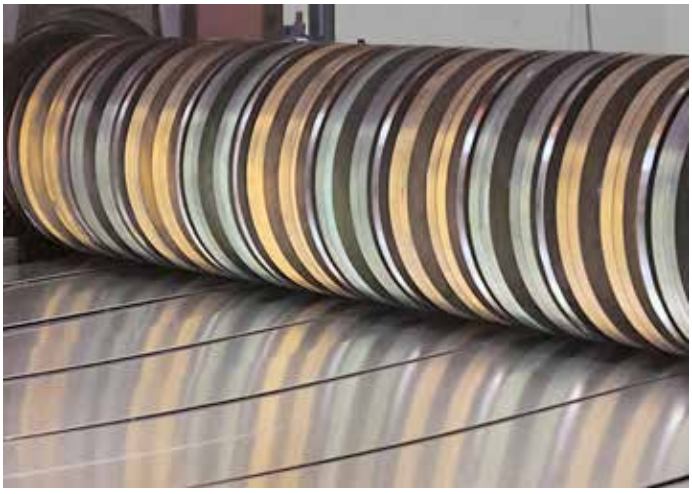
and the Mediterranean countries. Our sales' staff supports customers with competence, professional attitude and passion in order to help them to select the best product for each specific application.

Over the years, Sidermed S.p.A. has been able to build and develop strategic partnerships with the main national and international steel producers, thus offering customers a wide range of specific solutions according to the highest quality standards.

Sidermed can be a reliable supplier and partner for the most important companies in several sectors: electrical appliances, automotive, metal stamping, shelving, forging, metal furnishings and metalworking in general.

Sidermed's strengths are:

- professionalism and technical competence developed in over 30 years of activity
- commitment, passion and reliability on customer service
- quality and high-level service
- wide range of products available
- technological level of plants and equipments
- logistically strategic location.



SIDERMED
steel service center

Quality

Being a reference partner for our customers means guaranteeing the quality of each action we perform. Therefore, quality plays a key role for Metalsider and Sidermed. Both companies have developed a UNI EN 9001:2008-certified quality management system. This means that every internal and external manufacturing and management process is carried out according to strict standard rules which have been already tested to assure full traceability of each delivered sheet or strip.

Our internal laboratories are equipped with the most innovative machineries for chemical, mechanical and metallographic tests of materials. An incoming test is carried out for each coil or sheet coming from our suppliers to check its full compliance with our requirements before processing it, in order to guarantee our customers that our materials are appropriate to their needs. .

Our companies can deliver materials which have been tested by the main inspection bodies in the shipbuilding and industrial sectors (R.I.N.A., LR, ABS, BV, DNV) and according to all requirements of the railway sector.

Furthermore, a competent technical staff can support our customers to search for and identify the most suitable materials for each specific application.

In partnership with our main suppliers, we can develop customised products for the most sophisticated applications assuring technical support and a constant activity of research and development at the service of our customers.

Metalsider steel service center

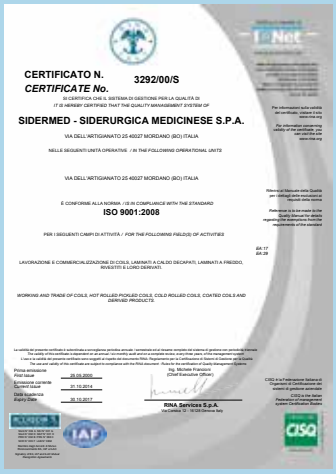
Member of CISQ Federation RINA ISO 9001:2008 Sistema Qualità Certificato


CERTIFICATO N. 71/93/S
CERTIFICATE No.
METALSIDER S.P.A.
VIA PIOMBONI 3 48122 RAVENNA (RA) ITALIA
ISO 9001:2008
RINA Services S.p.A.


IQNet
CERTIFICATE
IQNet and CISQ/RINA
hereby certify that the organisation
METALSIDER S.P.A.
VIA PIOMBONI 3 48122 RAVENNA (RA) ITALIA
has implemented and maintains a
Quality Management System
which fulfills the requirements of the following standard
ISO 9001:2008
in the following operative units
VIA PIOMBONI 3 48122 RAVENNA (RA) ITALIA
for the following field of activities
Registration Number: IT-2611

SIDERMED steel service center

Member of CISQ Federation RINA ISO 9001:2008 Sistema Qualità Certificato


CERTIFICATO N. 3292/00/S
CERTIFICATE No.
SIDERMED - SIDERURGICA MEDICINESE S.P.A.
VIA DELL'ARTIGIANATO 25 40027 MORDANO (BO) ITALIA
ISO 9001:2008
RINA Services S.p.A.


IQNet
CERTIFICATE
IQNet and CISQ/RINA
hereby certify that the organisation
SIDERMED - SIDERURGICA MEDICINESE S.P.A.
VIA DELL'ARTIGIANATO 25 40027 MORDANO (BO) ITALIA
has implemented and maintains a
Quality Management System
which fulfills the requirements of the following standard
ISO 9001:2008
in the following operative units
VIA DELL'ARTIGIANATO 25 40027 MORDANO (BO) ITALIA
for the following field of activities
Registration Number: IT-14080

Safety

The companies of Finmasi Group are constantly committed to work in full safety. Remarkable investments are made every year to guarantee safety in the workplace through maintenance activities and constant updating of plants, lifting and handling equipments. Beside that, further training of all operators involved in the production process is guaranteed through specific programmes.

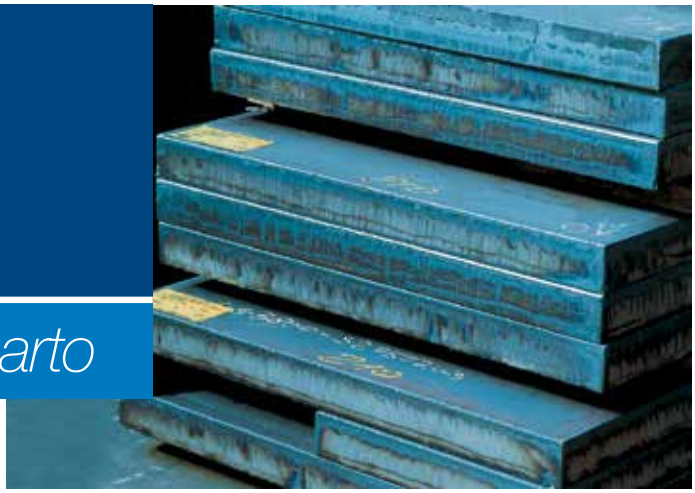
Environment

Respect for the environment and eco-friendly production processes are key issues for both companies. The so-called "Green Steel" project was completed in 2013 with 4.160 solar cells installed on Metalsider main facility generating over 1 Mw "clean" electricity to feed our plants and become less dependent on traditional energy resources. Therefore, we can reduce the quantity of polluting emissions and protect the environment.

Avoided emissions	Quantity
Smoke and industrial dust PM10	0,003 t / year
Nitrogen oxide NOX	0,32 t / year
Greenhouse gases	491,67 t CO_2 / year

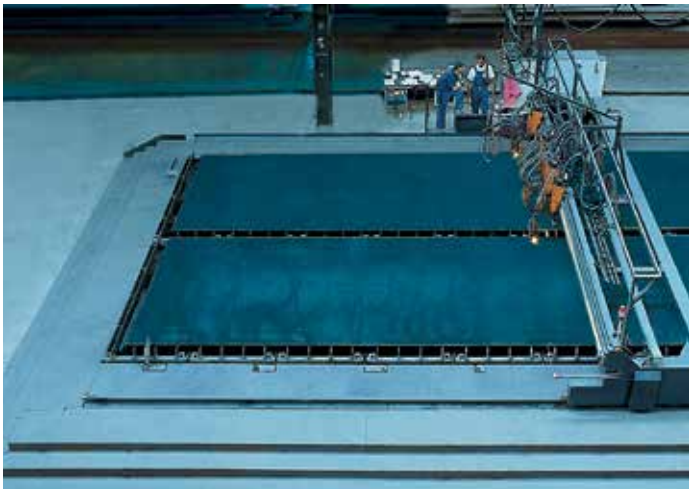
Hot Rolled Plates

Laminati a caldo da treno quarto



Characteristics

These products are obtained by hot rolling of steel coming from integrated steelworks and/or electric furnace. Steel slabs are heated up to rolling temperature. Then, slabs go into reversible rolling machines which process them until needed size is reached. Heavy plates can be supplied with unfinished or trimmed edge and with sandblasted, primed or unfinished surface.



Quality table

Type	Quality	Product designation	Norm
Hot-rolled flat unalloyed steel for structural use	S235 - S275 - S355	JR - J0 - J2 - J2+N - K2C+N	EN 10025-2: 2005
Hot rolled products for normalized weldable fine grain structural steels	S275 - S355 - S420 - S460	N - NL	EN 10025-3: 2005
Structural steel with improved atmospheric corrosion resistance	S355	J0W - J2W - J0WP - J2WP	EN 10025-5: 2005
Hot rolled products of high strength structural steels in the quenched and tempered conditions	S460 - S500 - S550 - S620 S690 - S890 - S960	Q - QL - QL1	EN 10026-5: 2005
Steel for simple pressure vessels	P235 - P265 - P275	S	EN 10207: 2005
Steel for pressure purposes with elevated temperature properties	P235 - P265 - P295 - P355	GH	EN 10028-2: 2005
Steels for pressure purposes,weldable fine grains steel and normalized	P275 - P355 - P460	N - NL - NL1/2	EN 10028-3: 2005
Wear plates	HB400 - 450 - 500 - 600		

Application fields

Heavy plates are used for a huge variety of applications according to steel quality.
Main application fields can be summarised as follows:

Steel products for structural use

This is the most frequently used kind of steel thanks to its high versatility. It can be used for construction purposes, for light and heavy carpentry, poles, welded tubes and in the railway sector.

Hot rolled products for normalized weldable fine grain structural steels

With a particularly fine grain, they can be used for metal structures (such as bridges, tanks and other welded structures) where shock-resistant products with an excellent fracture toughness at low temperatures are needed.

Structural steel with improved atmospheric corrosion resistance (CORTEN)

They are used in the construction sector, for civil works and safety barrier, as well as for containers, bridges and furnishings. Their specific chemical composition – featuring among others elements, Copper, Nickel, Chromium and Phosphorus – creates an oxide self-protecting layer on the surface, which makes this kind of steel particularly resistant to atmospheric corrosion and mechanical stress. These steel products can be supplied either with Phosphorus (P) (Corten A), for architectural applications thanks to its typical rusty colour, or without Phosphorus (Corten B), for structures which must endure more mechanical stress.

Hot rolled products of high strength structural steels in the quenched and tempered conditions

This kind of steel is obtained by quenching first, then by tempering, which makes it mechanically very resistant. This kind of steel is extremely homogeneous and it has a chemical composition with a particularly low level of undesired elements and very few non-metallic inclusions. These steel products are used for the productions of truck chassis, lifting and handling equipments, trailers, etc.

Steels for simple pressure vessel

They are used in welded tanks which must be subject to an internal pressure up to 30 bar maximum, with an operating temperature between 300 °C and -50 °C, to contain either air or nitrogen.

Steel for pressure purposes with elevated temperature properties

They are used for furnaces , pressure devices, tubes for the transport of liquids at high temperatures and for heat exchanger needing excellent resistance to pressure at any temperature. These products are known for their good weldability and excellent toughness beyond aptitude in normalization processes.

Steels for pressure purposes,weldable fine grains steel and normalized

Featuring a particularly fine-grained structure, these products boast match an extremely high yield strength level and excellent weldability together with a remarkable endurance of low temperatures. They are suitable for structural use as well as for pressure vessels and compressors working at up to -50 °C.

Wear-resistant steel products

These are abrasion-resistant martensitic steels with best cold-forming capacity and excellent weldability. They are used for bodyworks of trailers, mixing rotors, containers for waste or mineral transport, conveyor belts and components of earth-moving equipments.

Black Hot Rolled Coils

Black hot-rolled

Characteristics

Black hot-rolled products are obtained by hot-rolling of steel coming from from integrated steelworks and/or electric furnace. Steel slabs coming from integrated steelworks or electric furnace are heated up to rolling temperature and cleaned of any waste particle through a specific surface treatment. Then, slabs are put into special cages provided with cylinders having a flexible diameter. These cylinders are crushed until desired thickness is obtained. When sheets come out of rolling cages in the requested shape, they get washed with demineralised water, thus regulating the cooling process which is extremely important to define mechanical characteristics of steel. Then, steel sheets are put on a wrap-rereel to obtain hot-rolled coils. At this stage, an iron oxide layer (scale) provides a first protection against atmosheric corrosion and gives the product its typical blu/black color. The product can either be used unfinished (the so-called "Black coils") or it can be pickled by immersion in vessels with increasing concentration of acid to remove the oxide layer generated during the rolling process. Through further rolling and coating processes, hot-rolled coils can be used to produce cold-rolled, galvanised and all coated coils.

Quality table

Type	Quality	Product designation	Norm
Low-carbon sheets and strips for cold-forming obtained by continuous hot rolling	DD11 - DD12 - DD13 - DD14		EN 10111: 2008
Hot-rolled flat steel for structural use	S235 - S275 - S355	JR - J0 - J2 - J2+N - K2C+N	EN 10025-2: 2005
Hot-rolled flat unalloyed steel with embossed surface	All		Diamond patterned steel sheets UNI 3151/1982 – Teardrop patterned steel sheets UNI 4630/1982
Hot Rolled flat products made of high yield strength steels (HSLA) for cold forming	S315 - S355 - S420 - S460 S500 - S600 - S650 - S700 - S900 - S960	MC	EN 10149-2: 2013
Structural steels with improved atmospheric corrosion resistance	S355	J0W - J2W - J0WP - J2WP	EN 10025-5: 2005
Steels for quenching and tempering	30MnB5		EN 10083-3: 2005
Steels for simple pressure vessel	P235 - P265 - P275	S - SL	EN 10207: 2005
Steels for pressure purposes with elevated temperature properties	P235 - P265 - P295 - P355	GH	EN 10028-2: 2005
Steels for pressure purposes, weldable fine grain steels and normalized	P275 - P355 - P460	N – NL – NL1/2	EN 10028-3: 2005
Steel sheet and strips for welded gas cylinders	P245 - P265 - P310 - P355	NB	EN 10120: 2008

Application fields

Black hot-rolled flat steel products are used for a huge variety of applications according to steel quality.

For cold forming

Featuring a particularly low-carbon chemical composition, which makes them very easily processable, they are used for all applications needing products with good strain capabilities to make bending, forging and stamping easier.

For structural use

They are used for applications in several fields: construction, light and heavy carpentry, poles, welded tubes, forging, grids and railway sector. This is the kind of steel products which are most frequently used due to their high versatility.

High yield strenghth steels (HSLA) for cold forming

These steel products guarantee high mechanical resistance and toughness, excellent cold-forming capabilities and outstanding weldability. They are used for structures and manufactured products needing the highest resistance and reduced weight, but the same mechanical characteristics compared to other steel products: robots' arms of lifting equipments, heavy shelving, components for use in automotive and for industrial vehicles, earth-moving and agricultural machines. They are also particularly suitable for series' production because of their constant reaction to stamping.

Hot rolled products of high strength structural steels in the quenched and tempered conditions

These products are usually obtained from structural steel and they have an embossed surface with either teardrop-shaped elements (teardrop patterned) or diagonal crossed strips (diamond patterned), usually meant as non-slip or anti-slide device. Therefore, these products are used on runways, lifting and operator's platforms, loading ramps as well as for scales and public weighing machines.

Structural steel with improved atmospheric corrosion resistance (CORTEN)

They are used in the construction sector, for civil works and safety barriers as well as for containers, bridges and furnishings. Their specific chemical composition – featuring among others Copper, Nickel, Chromium and Phosphorus – creates an oxide self-protecting layer on the surface, which makes this kind of steel particularly resistant to atmospheric corrosion and mechanical stress. These steel products can be supplied either with Phosphorus (P) (Corten A), for architectural applications thanks to its typical rusty colour, or without Phosphorus (Corten B), for structures which must endure more mechanical stress.

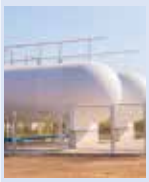
Hot rolled products of high strength structural steels in the quenched and tempered conditions

These products are specifically developed to endure a further heat treatment to be quenched and tempered. Therefore, they guarantee extreme hardness thanks to the addition of Boron to their chemical composition. They are used for applications requiring high resistance to mechanical abrasion, such as for blades of agricultural tools, hoes, machines for the mining sector and mechanical parts in general.

Steels for simple pressure vessel

They are used in welded tanks which must be subject to an internal pressure up to 30 bar maximum, with an operating temperature between 300 °C and -50 °C, to contain either air or nitrogen.

Steel for pressure purposes with elevated temperature properties



They are used for furnaces , pressure devices, tubes for the transport of liquids at high temperatures and for heat exchanger needing excellent resistance to pressure at any temperature. These products are known for their good weldability and excellent toughness beyond aptitude in normalization processes.

Steels for pressure purposes,weldable fine grains steel and normalized

Featuring a particularly fine-grained structure, these products boast match an extremely high yield strength level and excellent weldability together with a remarkable endurance of low temperatures. They are suitable for structural use as well as for pressure vessels and compressors working at up to -50 °C.

Steels for welded gas cylinders

They guarantee high deep-drawing performances. Therefore, excellent weldability and toughness are needed and mechanical features must not be in any way affected by normalization processes.

Hot Rolled Coils Pickled and Oiled

Laminati a Caldo Decapati

Characteristics

Pickled hot-rolled products are obtained first by hot-rolling, then by immersion in vessels (the so-called pickling baths) filled with either hydrochloric or sulphuric acid, which removes scale from the surface. Afterwards, surface is slightly oiled to be protected. As an alternative, these products can also be supplied in a dry version (without oil-coating).

Quality table

Type	Quality	Product designation	Norm
Hot Rolled Low Carbon steel sheets and strips for cold forming	DD11 - DD12 - DD13 - DD14		EN 10111: 2008
Hot rolled products of structural steels	S235 - S275 - S355	JR - J0 - J2 - J2+N K2C+N	EN 10025-2: 2005
Hot Rolled flat products made of high yield strength steels (HSLA) for cold forming	S315 - S355 - S420 - S460 S500 - S600 - S650 - S700 - S900 - S960	MC	EN 10149-2: 2013
Structural steels with improved atmospheric corrosion resistance	S355	J0W - J2W - J0WP - J2WP	EN 10025-5: 2005
Steels for quenching and tempering	30MnB5		EN 10083-3: 2006
Steels for simple pressure vessel	P235 – P265 – P275	S -SL	EN 10207: 2005
Steels for pressure purposes with elevated temperature properties	P235 - P265 - P295 - P355	GH	EN 10028-2: 2005
Steels for pressure purposes, weldable fine grain steels and normalized	P275 – P355 – P460	N – NL – NL1/2	EN 10028-3: 2005
Steel sheet and strips for welded gas cylinders	P245 - P265 - P310 - P355	NB	EN 10120: 2008

Application fields

Pickled flat steel products are generally used for applications needing surface coating or hot dip galvanization. A scale-free, properly oiled surface makes drawing, forging and laser cutting easier. Steel products of this kind are mainly used for light carpentry, forming, metal furnishings, tanks, shelving, forging, small metallic parts.
Pickled hot-rolled steel products are used for a huge variety of applications according to steel quality. Main application fields can be summarised as follows:

For cold forming

Featuring a particularly low-carbon chemical composition, which makes them very easily processable, they are used for all applications needing products with good strain capabilities to make bending, forging and stamping easier.

For structural use

They are used for applications in several fields: construction, light and heavy carpentry, poles, welded tubes, forging, grids and railway sector. This is the kind of steel products which are most frequently used due to their high versatility.

High yield strenghth steels (HSLA) for cold forming

These steel products guarantee high mechanical resistance and toughness, excellent cold-forming capabilities and outstanding weldability. They are used for structures and manufactured products needing the highest resistance and reduced weight, but the same mechanical characteristics compared to other steel products: robots' arms of lifting equipments, heavy shelving, components for use in automotive and for industrial vehicles, earth-moving and agricultural machines. They are also particularly suitable for series' production because of their constant reaction to stamping.

Structural steel with improved atmospheric corrosion resistance (CORTEN)

They are used in the construction sector, for civil works and safety barriers as well as for containers, bri*dges and f*urnishings. Their specific chemical composition – featuring among others Copper, Nickel, Chromium and Phosphorus – creates an oxide self-protecting layer on the surface, which makes this kind of steel particularly resistant to atmospheric corrosion and mechanical stress. These steel products can be supplied either with Phosphorus (P) (Corten A), for architectural applications thanks to its typical rusty colour, or without Phosphorus (Corten B), for structures which must endure more mechanical stress.

Hot rolled products of high strength structural steels in the quenched and tempered conditions

These products are specifically developed to endure a further heat treatment to be quenched and tempered. Therefore, they guarantee extreme hardness thanks to the addition of Boron to their chemical composition. They are used for applications requiring high resistance to mechanical abrasion, such as for blades of agricultural tools, hoes, machines for the mining sector and mechanical parts in general.

Steels for simple pressure vessel

They are used in welded tanks which must be subject to an internal pressure up to 30 bar maximum, with an operating temperature between 300 °C and -50 °C, to contain either air or nitrogen.

Steel for pressure purposes with elevated temperature properties

They are used for furnaces , pressure devices, tubes for the transport of liquids at high temperatures and for heat exchanger needing excellent resistance to pressure at any temperature. These products are known for their good weldability and excellent toughness beyond aptitude in normalization processes.

Steels for pressure purposes, weldable fine grains steel and normalized

Featuring a particularly fine-grained structure, these products boast match an extremely high yield strength level and excellent weldability together with a remarkable endurance of low temperatures. They are suitable for structural use as well as for pressure vessels and compressors working at up to -50 °C.

Steels for welded gas cylinders

They guarantee high deep-drawing performances. Therefore, excellent weldability and toughness are needed and mechanical features must not be in any way affected by normalization processes.

Cold Rolled Coils

Acciai Laminati a Freddo

Characteristics

Cold-rolled products are the result of a mechanical process called cold rolling. This is performed at room temperature to obtain thinner steel sheets with better surface aspect. This process can be performed by continuous or static annealing, after which steel can be skinpassed. Surface aspect can be classed as "A" (standard) or "B" (particularly well-finished, flawless surface). These rolled steel products are usually oiled before delivery in order to prevent their oxidation, but they can also be supplied without oil coating.

Quality table

Type	Quality	Product designation	Norm
Cold-rolled low carbon flat steel products for cold forming	DC01 - DC03 - DC04 - DC05 - DC06 - DC07		EN 10130: 2007
Cold-rolled low carbon flat steel products with high strength low alloy	HC180 - HC220 - HC260 - HC300 - HC340 - HC380 - HC420	Y - P - B - LA - I	EN 10268: 2006
Cold-rolled coils for vitreous enameling	DC01 - DC03 - DC04 - DC06	EK - ED	EN 10209: 1998

Application fields

Cold-rolled flat steel products are used for applications needing surface coating. They are the best solution when steel forming is required, either by forging or bending. Furthermore, they are suitable for hot-dip galvanizing, electrolytic coating and phosphating. Cold-rolled steel products are used for a huge variety of applications according to steel quality. Main application fields can be summarised as follows:

Flat steel products for cold forming

Featuring high yield- and tensile strength and guaranteeing minimum elongation properties, these products are used in several sectors: moulding, automotive, metal furnishings, lighting, light carpentry and forging.

High-yield-strength steel products

Better known as high-resistance or low alloy steels, they are suitable for all applications needing high resistance, e.g. in the automotive sector and for shelving, building frames, metal furnishings and industrial hinges.

Cold-rolled coils for vitreous enameling

These products undergo a high-temperature heat treatment (up to 880 °C), after which a vitreous enamel coating is applied on them. Surface finish can be standard or rough and products are usually oiled before delivery. Main application fields are household appliances, tubes, furnishing, radiators and boilers, car parts.

Hot Dipped Galvanized Coils

Acciai Zincati a Cald

Characteristics

Hot-dip galvanized steel products are made of a steel substrate (pickled, cold-rolled) on which a zinc-coating is applied by hot-dip galvanization. More or less micron Zinc are applied on the substrate, and this makes these products extremely resistant to corrosion and oxidation and they can be used for a variety of applications. Therefore, these products can be supplied with a Zinc coating reaching up to 750 g/m2 thickness and with particolar surface treatments (dry, oiled, chromated, phosphated). Galvanized steel products can be supplied with standard surface finish (A), skinpassed (B) or with well-finished, flawless surface (C) according to specific customer needs.

Quality table

Type	Quality	Product designation	Norm
Galvanized coils for cold forming	DX51D - DX52D - DX53D - DX54D - DX56D		EN10346: 2009
Galvanized coils of structural steel	S220GD - S250GD - S280GD - S320GD - S350GD		EN10346: 2009
Galvanized coils with high strength low alloy for cold forming	HX160 - HX180 - HX220 - HX260 - HX300 - HX340 - HX380 - HX420 - HX460 - HX500	LAD - YD - BD	EN10346: 2009
Galvanized coils dual phase	DP600 - DP800 - DP1000		EN10346

Application fields

Galvanized coils for cold forming (drawing or bending)

They are used in the automotive and construction sectors and in the manufacturing of metal structures, dropped ceilings, profiles for gypsum walls, panels, vacuum systems, air- conditioning devices, household appliances, agricultural machines, light carpentry and tubes.

For structural use

They are meant for products which shall keep their mechanical characteristics unchanged over time. They are mainly used by manufacturers of metal structures, scaffolding, metal shelving, forging, grids.

Galvanized coils with high strength low alloy for cold forming

Featuring excellent ductility, they guarantee high-yield strength and out standing mechanical resistance. They can be processed using a smaller radius of curvature compared to galvanized coils for structural steel. Hot-dip galvanized coils of this kind are mainly used for manufacturing shelves, forging and for the production of car parts.

Galvanized coils dual phase

These coils contain ferrite and martensite. Therefore, they have excellent elongation properties and high tensile strength. These coils are the best solution for the manufacturing of important car parts.

Electrogalvanized Coils

Acciai Elettrozincati

Characteristics

Electrogalvanized coils are made up of a steel substrate on which a pure Zinc-coating is applied by electrolysis. Aim of this process is to obtain coils which can resist corrosion and work as a perfect base for coating. The amount of Zinc is definitely lower and its application is more controlled and accurate compared to hot-dip galvanization. As a consequence, surface of these coils is even better finished and more homogeneous. Through electrolysis it is possible to coat just one side instead of both, or to decide the amount of Zinc to be applied on each side. Beside Zinc coating, a Zinc-Nickel coating is also available which improves weldability, formability and resistance to corrosion. Surface protection of electrogalvanized coils is obtained by chemical passivation, oiling or phosphating.

Quality table

Type	Quality	Norm
Electrogalvanized coils for cold forming	DC01+ZE - DC03+ZE - DC04+ZE - DC05+ZE - DC06+ZE - DC07+ZE	EN10152: 2009
Electrogalvanized coils with high strength low alloy for cold forming	HC260LA+ZE - HC300LA+ZE - HC340LA+ZE - HC380LA+ZE - HC420LA+ZE	EN 10268: 2006

Application fields

Main application fields can be summarised as follows:

Electrogalvanized coils for cold forming	Electrogalvanized coils with high strength low alloy for cold forming
 Thanks to their mechanical features, they are suitable both for light stamping and deep drawing and they are used for the manufacturing of - among others - elevators, control cabinets, computers, armored doors, washing machines, small household appliances, microwave ovens.	 They are suitable for all applications needing high resistance, e.g. for the manufacturing of car parts, shelving, metal furnishings.

Hot aluminized Coils

Acciai Alluminiati

Characteristics

Aluminized coils are flat carbon steel products coated on both sides with an Aluminium-Silicon alloy which is applied by continuous hot dipping. Main feature is excellent resistance to corrosion and high temperatures up to 450 °C. Different coatings are available for different applications, from 60 g/m2 to 200 g/m2. Surface aspect can change based on customer's request: "A" is the most common one; "B" is obtained by skinpass, thus removing more visible clumps and scratches; "C" is also obtained by skinpass though with a more accurate and detailed process, thus making coils' surface completely flawless. These coils can have different surface finishes. The most common ones are oiling, chimica passivation, organic passivation and phosphating. Aluminized coils can be used for deep drawing, forging, bending and manufacturing of welded tubes. These processes should be very carefully performed because some particles can be detached from coils' surface due to high friction generated by steel. Therefore, lubricants should be used to avoid friction between coils and working tools.

Quality table

Type	Quality	Norm
Aluminized coils for cold forming	DX51D+AS - DX53D+AS - DX54+AS - DX56D+AS - DX57+AS	EN10346: 2009
Aluminized coils of structural steel	S250GD+AS - S280GD+AS - S320GD+AS - S350GD+AS	EN10346: 2009

Application fields

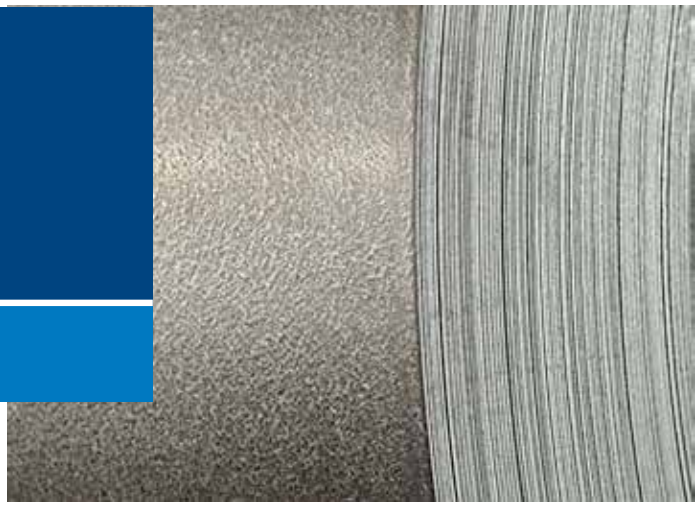
Aluminized coils for cold forming

Thanks to their mechanical features, they are suitable both for light stamping and deep drawing and they are used for the manufacturing of - among others - mufflers, silencers, industrial and wall ovens, waste gas flues.

Aluminized coils of structural steel

They can keep steel structure unchanged over time. They are used for the manufacturing of heat exchangers, fire doors, tubes and heat shielding.

Aluzinc®



Aluzinc®

Characteristics

Aluzinc® coils are made up of a carbon steel base on which a coating – consisting of Aluminium (55%), Zinc (43,4%) and Silicon (1,6%) - is applied by continuous hot dipping. Main feature of these coils is their excellent resi stance to corrosion: Aluzinc® coils have a 5-times higher resistance to salty mist corrosion compared to hot-dip galvanized coils with equal coating thickness and they also resist abrasion. Different coating amounts are available for these coils as well, most commonly used being AZ100 and AZ185. If not otherwise requested, surface aspect is of "A"-type, with small imperfections, passivation stains and light scratches. A more accurate surface aspect of "B"- or "C"-type may also be requested (without surface defects). These coils can be supplied with different surface finishes such as oiling, chimical passivation, organiz passivation and phosphating. These coils can be supplied in different qualities and with different mechanical properties: for drawing and cold forming, high-resistance and structural. Featuring a much higher resistance to corrosion and atmospheric agents than any other coated coil, Aluzinc® coils can be easily used outdoors and they can endure temperatures up to 350 °C.

Quality table

Type	Quality	Norm
Aluzinc® coils for cold forming	DX51D+AZ - DX52D+AZ - DX53D+AZ - DX54D+AZ - DX56D+AZ	EN10346: 2009
Aluzinc® coils of structural steel	S220GD+AZ - S250GD+AZ - S280GD+AZ - S320GD+AZ - S350GD+AZ - S550GD+AZ	EN10346: 2009

Application fields

Aluzinc® coils for cold forming

Thanks to their outstanding resistance to oxidation, these coils are used in all industrial sectors where no coating of steel parts is foreseen. Main application fields are the manufacturing of cars, household appliances, panels, vacuum and ventilation systems, electric appliances.

Aluzinc® coils of structural steel

These coils are the right choice to keep the structure of manufactured products unchanged while perfectly enduring both corrosion and mechanical stress.

Pre-Painted Coils

Preverniciati

Characteristics

Pre-painted coils consist of a carbon-steel substrate, either hot-dip coated or cold-rolled, on which an organic coating in the form of paint (or powder) is applied by a continuous process (coil coating) or by co-lamination with plastic sheets. These products can be supplied following a huge variety of specifications: with steel substrates having different mechanical qualities, with different surface finishings and glossiness, in a huge variety of colours. The steel substrate which is used for this process can be either zinc-coated or cold-rolled in order to face a higher or lower corrosion risk. According to the different applications, different steel substrates can be used: for steel moulding, cold-forming, high-resistance and for structural use with or without coating. The most common protection system consists in applying a 25 µm-thick dry film on the upper face and a 5-10 µm-thick dry film on the lower face. Pre-painted coils with 25 µm-thick dry film on both faces can also be supplied upon specific request. Several kinds of paint can be used according to the application of the product. The most common one is polyester-based but also other kinds are available on request, for ex. acrylic, epoxy, polyamide-based or in polyurethane, silicone, polyvynil, etc. Pre-painted coils can be produced in any colour. Also, pre-painted coils can be supplied with different gloss degrees – from matt to brushed up to semi-glossy and very glossy. Pre-painted rolled flat products can endure temperatures up to 80 °C. These products can be protected by applying peelable protective films (generally made of either polyethylene or PVC or plastic-coated). These coils can be used for different applications, from construction (aluminium-foam panels, partitions, shutters, up-and-over doors, tinsmithery, false ceilings and fretted metal sheets), to household appliances (washing machines, refrigerators, hot water heaters), furnishings and lighting systems, metal furnishings, furniture items in general, lamps, illuminated signs and name-plates, etc.

Pre-Coated Coils

Plastificati

Characteristics

Plastic-coated (or pre-coated) coils consist of a steel substrate on which a coating is applied on one or both sides. This coating is made of a PVC- or PPS (PVC+PET)-film which is applied by a continuous process (coil coating) or by co-lamination. The main feature of pre-coated coils is that they can be easily processed. The success of plastic-coated metal sheets is due to their mechanical peculiarities and to their high aesthetic value. These products are particularly appreciated also because they are hygienically safe, water-proof and easy to clean. They are therefore suitable for food contact and certified as low-flammability products. Recent developments in the field of plastic-coated sheets guarantee long-term quality thanks to state-of-the-art raw materials and environmentally friendly technologies. These products can be used for several applications, such as in the field of Hi-Fi and computers, naval furniture, interior decoration, household appliances, refrigerators and refrigerating panels, blackboards, shelvings, internal and external doors, automatic doors, shop windows, partitions, air conditioning systems, construction and swimming pools.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