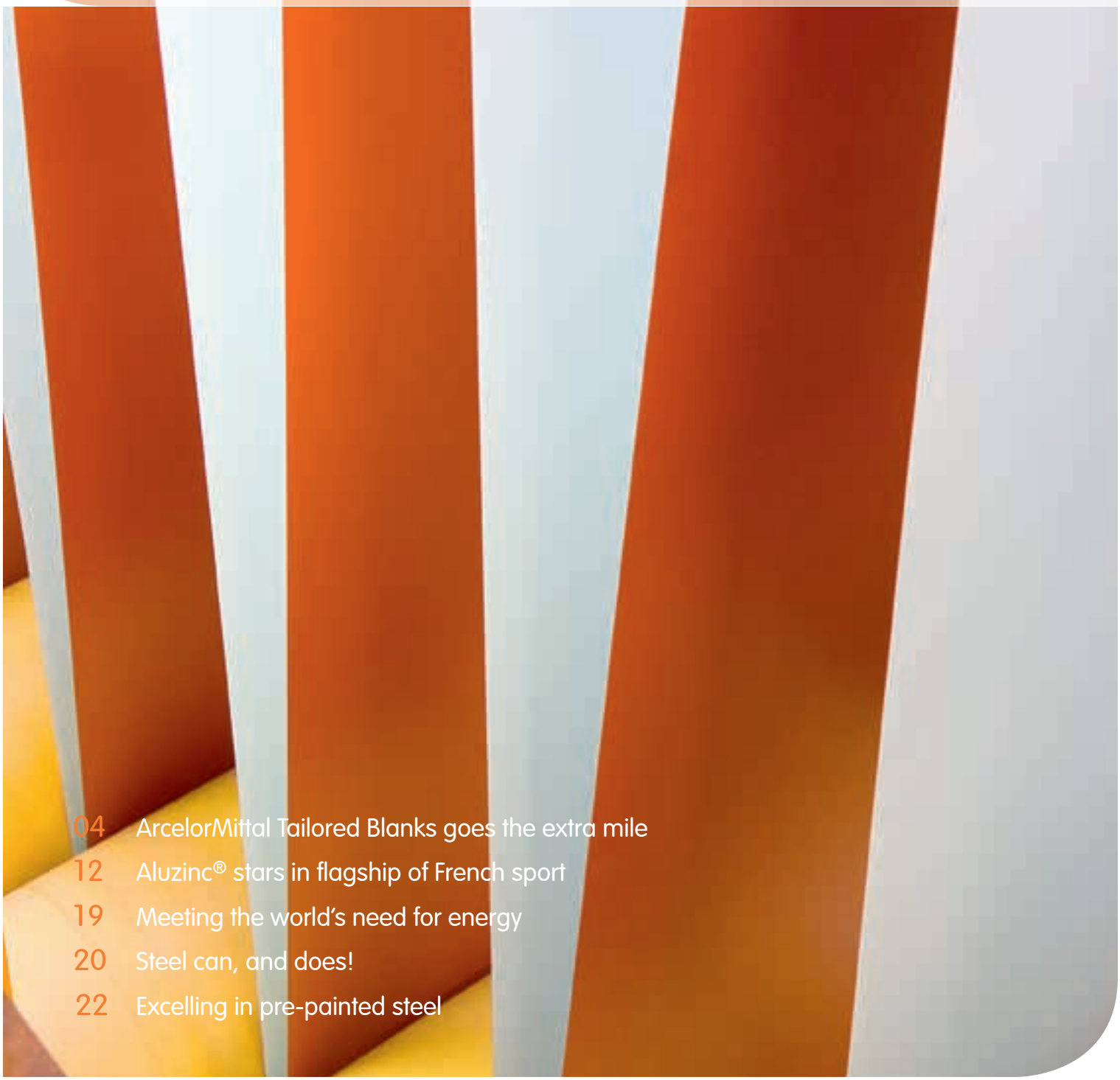
ArcelorMittal Europe – Flat Products

ArcelorMittal

# update

Client magazine | November 2014

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*Each edition of Update features an article from an ArcelorMittal opinion leader. This issue we hear from Geert Van Poelvoorde, Chief Executive Officer of ArcelorMittal Europe – Flat Products.*

# The strength of 'Made in Europe'

## Towards a renaissance of the European steel industry

**Steel is a sustainable and innovative material which is infinitely recyclable. It actively contributes to the reduction of greenhouse gas emissions and is, in many ways, the fabric of modern life. But in Europe, demand for steel remains 25% below 2007 levels and producers such as ArcelorMittal Europe face higher costs for energy, environmental compliance and labour than producers in other parts of the world.**

ArcelorMittal Europe is developing initiatives which will increase steel consumption domestically and further our exports to nearby regions. We believe it is imperative that the new European Commission acts quickly to establish a fair and level playing field which will allow steel producers to compete under the same conditions in both domestic and international markets.

As a company, ArcelorMittal is steadily working to increase demand through the introduction of new and innovative products and services. You will read about some of them in this edition of *Update*.

ArcelorMittal's powerful brand stands for sustainability, quality, leadership and superior service. Our entire organisation is focussed on 'doing the right thing' for our customers. We are striving to exceed the customer's expectations and to stay (or become) their preferred supplier of choice.

Since the creation of ArcelorMittal Europe at the beginning of 2014, many of you will have discovered that our European divisions now have a joint presence at international trade fairs. This enables us to showcase our full European range of products and services. This approach has already been rolled-out at events including Intersolar, Intertraffic, EWEA and SMM, which have covered the solar, road infrastructure, wind energy and shipbuilding markets respectively. Broadening our horizons, ArcelorMittal Europe has presented its entire offer for the oil and gas industry to more than 60,000 visitors at the ADIPEC fair in Abu Dhabi this month.

> "By highlighting the sustainability and quality of our 'Made in Europe' steels and solutions, ArcelorMittal Europe is confident that we can make a strong contribution to a renaissance that will ensure the long-term sustainability of the European steel industry."

**Geert Van Poelvoorde**


# ArcelorMittal Tailored Blanks goes the extra mile

## New investments to keep pace with carmakers

© Nissan

*The new edition of Nissan's top-selling Qashqai features extensive use of Laser Welded Blanks (LWBs) from ArcelorMittal.*

**Demand for the services of ArcelorMittal Tailored Blanks has never been higher. To better serve its growing customer base – principally carmakers and Tier-1 suppliers – Tailored Blanks is investing in new facilities and technologies. The developments are designed to ensure ArcelorMittal Tailored Blanks remains close to the customer, wherever they are located.**

### Major consolidation effort supports UK carmakers

Tailored Blanks services most of the OEMs and Tier-1 suppliers located in the United Kingdom (UK). Until recently we had a small operation in Birmingham. However, in 2013 Tailored Blanks was awarded a contract to supply LWB parts for Nissan.

Tailored Blanks would require three laser welding lines to meet demand. While the existing plant in Birmingham already had two lines, there was no room for a third. The solution was found four miles away where ArcelorMittal Distribution Solutions operated their own plant which served many of the same customers. Distribution Solutions was also producing blanks for Tailored Blanks who then welded the material before delivering it to customers.

As the Distribution Solutions site was larger, a decision was made to consolidate activities at that location. The two existing lines would be moved from Birmingham to the facility, and a third line added. The new site was named Tailored Blanks Birmingham. Work to move the two existing lines from Tailored Blanks to the new site began in mid-2013 and will be completed by the end of 2014. Thanks to this expansion, Tailored Blanks will operate an integrated site, dedicated to the high-end automotive market.

*Finished body side-panels being inspected just before delivery to the customer.*

## Success of Usibor® adds to demand for new lines

Usibor® is an advanced high strength steel which has been specifically developed by ArcelorMittal for hot stamping applications. The very high strength of the steel makes it possible to achieve weight savings of between 30 and 50% compared to traditional cold forming grades. An aluminium-silicon coating protects the Usibor® against corrosion, even after the hot stamping process.

LWB are a perfect application for Usibor® and have lead to a continuous growth in customer demand. The solution offers superior crash resistance, and remarkable weight reduction opportunities at a very competitive cost. More than two-thirds of the new orders for LWBs in 2013 were based on Usibor®.

To meet customer needs, Tailored Blanks is investing €8.5 million over two years at its Uckange plant in France, located adjacent to ArcelorMittal Florange, where Usibor® is produced. New blanking and ablation lines are being installed for the cutting and welding of Usibor® blanks.

The ablation line uses a process, patented by ArcelorMittal, to remove aluminium from the surface of Usibor®. This essential step comes between the cutting and welding stages and ensures the weld will maintain its strength after hot stamping.

Work is on track and the ablation line is expected to come online in late 2014. The blanking line is scheduled for completion during the first quarter of 2015.

The new equipment will enable ArcelorMittal Tailored Blanks Uckange to start producing welded blanks for hot stamping. This will provide ArcelorMittal customers with state-of-the-art solutions to competitively reduce car weight while improving crash performance.

Customer service is a priority for ArcelorMittal Tailored Blanks. Its nine facilities across Europe are located close to customers and ArcelorMittal sites, ensuring a seamless and efficient supply chain. The enhancements described in this article will enable ArcelorMittal Tailored Blanks to further expand its capabilities and offer better solutions to our customers.

### More info:

tailoredblanks.arcelormittal.com

## ArcelorMittal Senica installs new generation welding line

ArcelorMittal opened a production facility at our site in Senica (Slovakia) in October 2013. The new facility includes two welding lines and a blanking line, housed in a building designed and built for the purpose.

Although the plant can produce up to four million laser welded blanks (LWBs) per year, capacity is already being stretched. To meet demand, ArcelorMittal has started a new project to expand the facility.

As well as increasing floor space, Tailored Blanks will install a new generation, high productivity welding line. The non-standard line will enable Tailored Blanks to design and manufacture LWBs for customer-specific applications. When it is commissioned in the final quarter of 2015, the line will further strengthen Tailored Blanks' position in the growing Eastern European market.


# Going orange, staying green!

## ArcelorMittal Europe brands coils in new livery

© Jeroen Op de Beeck

*The first ArcelorMittal coils proudly wearing their bright, orange livery.*

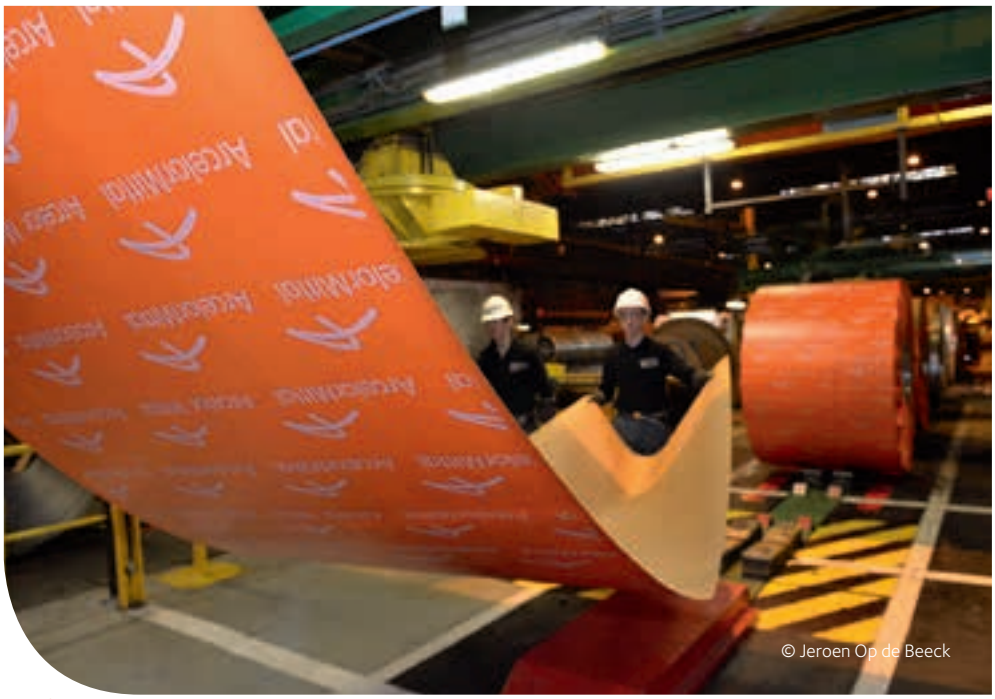
**Since early August the first ArcelorMittal Europe – Flat Products' coils have been wearing a brand new livery: orange! The new packaging paper used on coils for the European market now features ArcelorMittal's own brand colour with the logo in white. While customers will not notice a change in performance, the ArcelorMittal coils will certainly stand out in their warehouses.**

"When you visit the coil warehouse of a customer, you see coils from different producers, but from a distance it is hard to distinguish which ones are from ArcelorMittal," notes Jean-Martin Van der Hoeven, CMO ArcelorMittal Europe – Flat Products. "Last year we launched a project to make our coils stand out from the crowd by using our ArcelorMittal brand colour and logo more prominently."

To avoid waste and costs, and at customer request, only about 20% of all ArcelorMittal coils are wrapped. Except for a brighter colour in their warehouse, those customers will not notice a difference as the composition, performance and sustainability of the existing packaging has been maintained. "Quality will not be affected by the change, but customers will not miss the brand-new, colourful wrap!" comments André Lavaud of the ArcelorMittal Europe – Flat Products marketing team.

Each year, about 12 million square metres of the new wrapping paper will be used to protect coils as they travel from ArcelorMittal's mills to the customer. Deployment of the new packaging started in early August 2014 but it will not be utilised until each mill exhausts their supply of the earlier wrapping paper.

*The new packaging is available in all European mills and – to avoid waste – will be used as soon as each individual mill exhausts its existing supply of brown wrapping paper.*

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"This change is an important building block in the acknowledgement of ArcelorMittal's presence and in emphasising our premium brand. The ArcelorMittal brand stands for a high level of quality, service, superior products and excellence."

Jean-Martin Van der Hoeven
Chief Marketing Officer,
ArcelorMittal Europe –
Flat Products

# VAMA inaugurates landmark automotive steel plant

## New continuous annealing line rolls out first coil in China

**VAMA, the ArcelorMittal joint venture with Hunan Valin Iron & Steel Co. in China, successfully rolled the first coil off its mixed Continuous Annealing Line (CAL) on 10 August 2014. The event marked the final completion of construction and allows VAMA to begin supplying quality automotive steels to the Chinese market.**


The two-year construction project involved more than 2,000 workers and was officially opened on 15 June 2014. It is the first automotive steel production line in the country with the ability to produce aluminium-coated steel products and advanced high strength steels (AHSS).

VAMA, Valin ArcelorMittal Automotive Steel Co., produces high-strength automotive steels that are not currently manufactured in China. Located in the Loudi economic zone (Hunan Province), the plant represents a major investment in China by ArcelorMittal and its partner Hunan Valin. Total investment is 5.2 billion yuan (USD 832 million).

*Mr Lakshmi Mittal (right), Chairman and CEO of ArcelorMittal, and Mr Sanjay Sharma, CEO of VAMA, visiting the new steel plant.*

VAMA aims to supply international carmakers and Tier 1 suppliers based in China with a large range of automotive steel products. These include steels for visible parts, structural parts, the vehicle chassis and wheels. It will enable local carmakers to create safe, cost-efficient and lightweight vehicles for the Chinese market. The steels produced by VAMA will benefit from the superior coating technology of the CAL which creates steels with excellent surface quality.

"The most advanced technology has been extended to VAMA, which ideally positions the company to provide auto manufacturers with greater flexibility to produce lighter, safer and more environmentally friendly cars for customers in China."

Mr Lakshmi Mittal, Chairman and CEO of ArcelorMittal, at VAMA's inauguration

ArcelorMittal has contributed with the most advanced automotive steel production technology available. As a result the plant can produce ultra and advanced high strength steels (UHSS and AHSS) with strengths up to 1,200 MPa. The plant can also produce Usibor® 1500, ArcelorMittal's most popular hot stamping steel.

### VAMA in figures

VAMA's 520-metre Continuous Annealing Line is one of the most advanced automotive steel production lines in China.

VAMA's total annual capacity is 1.5 million tonnes comprised of:

- 800,000 tonnes of cold rolled coils
- 500,000 tonnes of hot-dip galvanised coils
- 200,000 tonnes of aluminium-coated coils

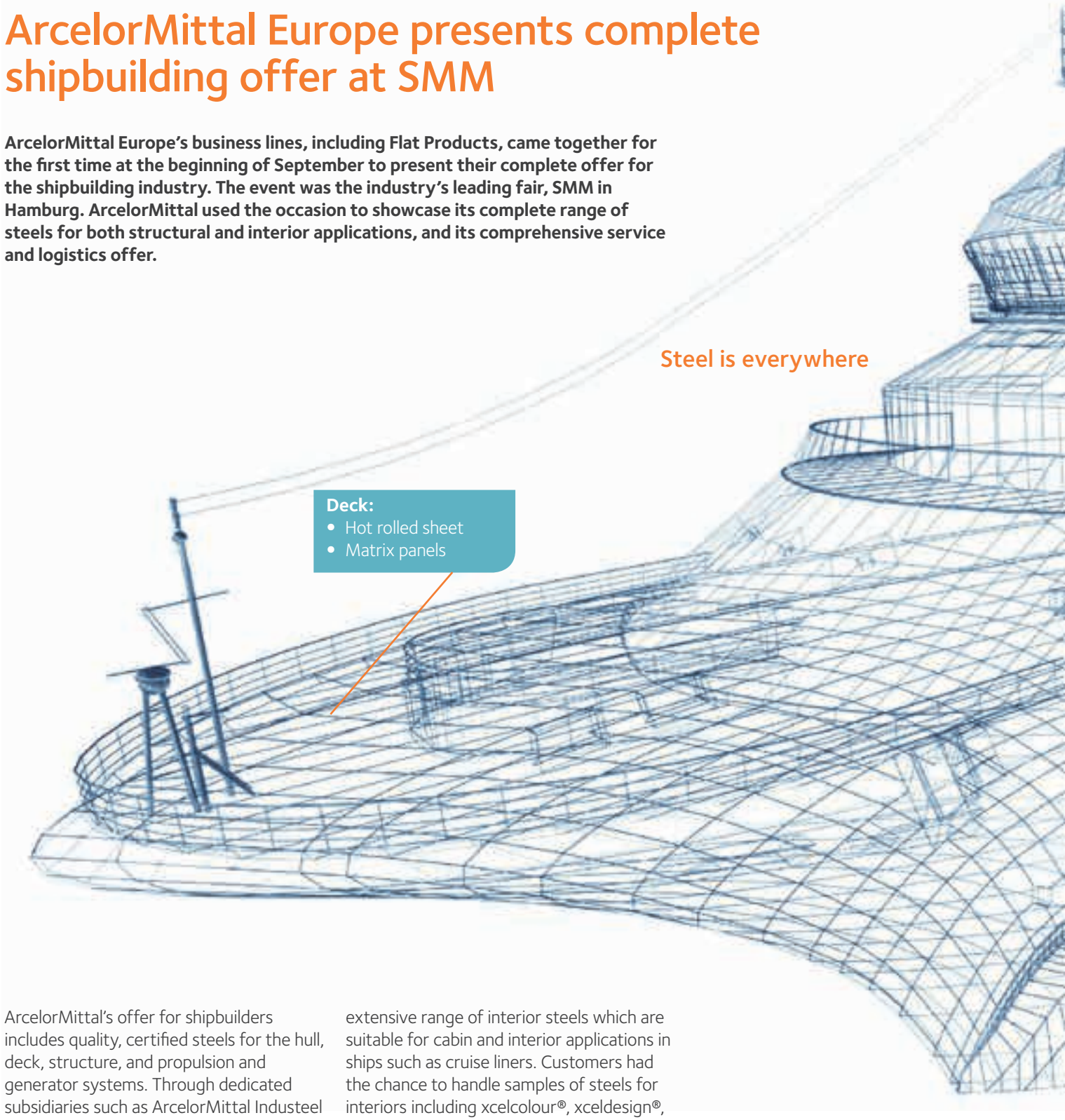
For more information about VAMA, please visit: www.vamachina.com

For more information about ArcelorMittal's automotive offer, please visit automotive.arcelormittal.com

# In the same boat!

## ArcelorMittal Europe presents complete shipbuilding offer at SMM

**ArcelorMittal Europe's business lines, including Flat Products, came together for the first time at the beginning of September to present their complete offer for the shipbuilding industry. The event was the industry's leading fair, SMM in Hamburg. ArcelorMittal used the occasion to showcase its complete range of steels for both structural and interior applications, and its comprehensive service and logistics offer.**



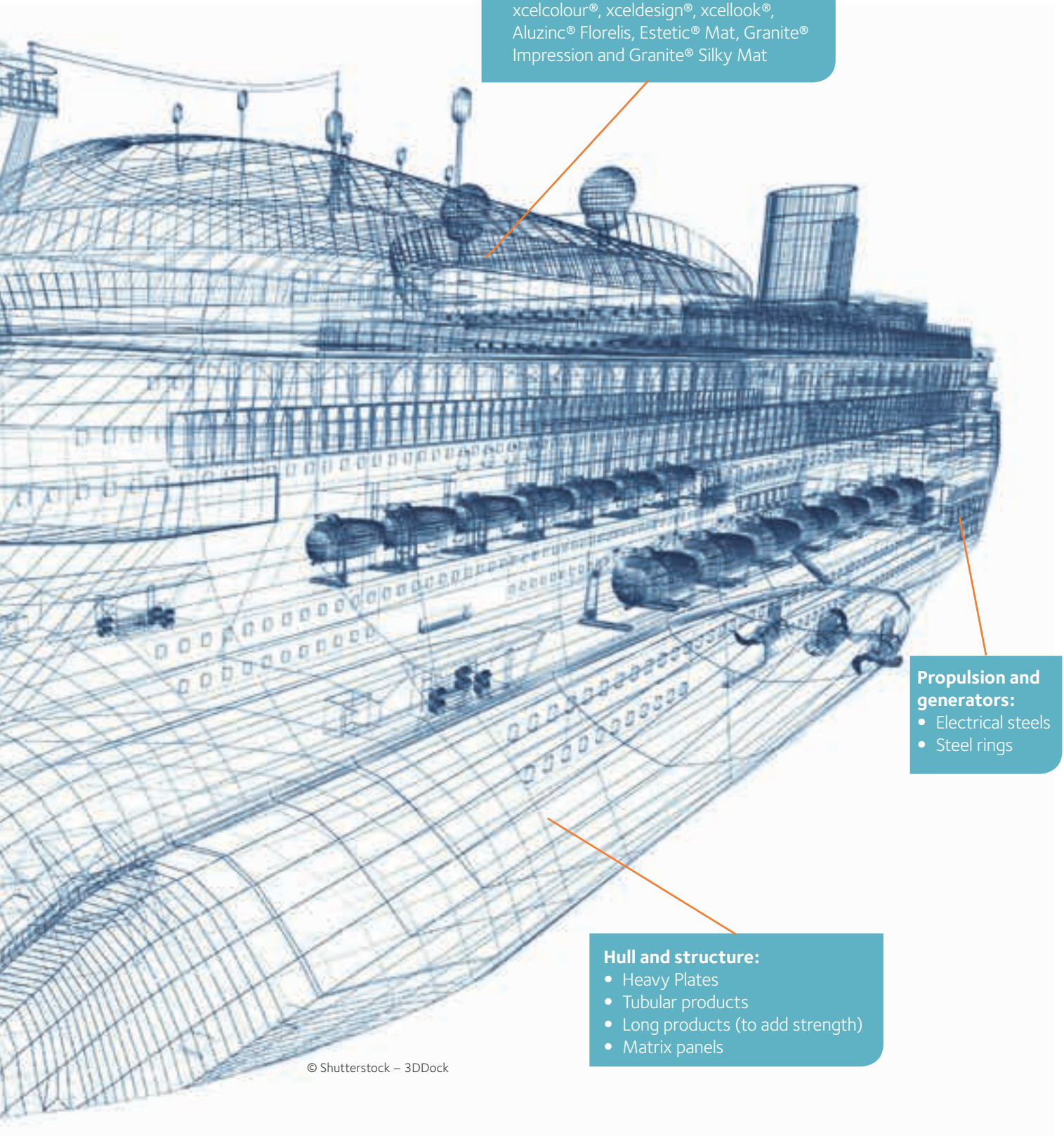

ArcelorMittal's offer for shipbuilders includes quality, certified steels for the hull, deck, structure, and propulsion and generator systems. Through dedicated subsidiaries such as ArcelorMittal Industeel and ArcelorMittal Ringmill, ArcelorMittal can supply specialised components including high strength plate or perfectly rolled rings (see page 10).

ArcelorMittal Europe – Flat Products is already well known in the shipping industry for its heavy plate and hot rolled coil offer for hull and deck applications. One of the major surprises for visitors to the ArcelorMittal stand at SMM was our extensive range of interior steels which are suitable for cabin and interior applications in ships such as cruise liners. Customers had the chance to handle samples of steels for interiors including xcelcolour®, xceldesign®, xcellook®, Aluzinc® Florelis, Estetic® Mat, and the new steels in the Granite® range – Impression and Silky Mat.

### Logistical support, second to none

Another advantage of working with ArcelorMittal, which was demonstrated at SMM, is our tailor-made approach to the specific needs of individual shipyards. ArcelorMittal has developed an extensive range of services which add value for our customers.

This includes dedicated customer and logistics support for shipbuilders which will assist them develop their projects, wherever they are located in the world. ArcelorMittal also operates strategically located production facilities, enabling us to provide shipbuilding steels in all European countries. Bi-monthly deliveries are made

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directly to many European shipyards using roll-on/roll-off vessels.

ArcelorMittal's extended research and development capabilities are helping our customers develop new solutions. One of the most recent innovations for shipbuilders has been the development of matrix panels by Global R&D. The relatively low-weight panels have many applications in shipbuilding (see page 10).

## Global research team and resources

ArcelorMittal Global R&D has a team of 1,300 world-class researchers, many of whom specialise in materials and welding research. Based on experimental tests and numerical modelling (using Eurocodes), our experts can help you to optimise the structure of your vessel. Structures made from our newly developed high strength steel grades enable greater spans and slender shapes. Global R&D can also perform orientation fire tests which comply with EN 13501-1, and has a complete range of welding equipment which is available to customers.

ArcelorMittal's presence at SMM 2014 demonstrated the comprehensive range of steels and steel solutions available to shipbuilders from the world's leading steel supplier. >>

## Specialised products for shipbuilding applications

ArcelorMittal offers a number of products vital to shipbuilding from our specialised divisions in Europe. ArcelorMittal Industeel for example specialises in the production of very strong steel grades which are suitable for the demanding environments encountered by arctic and deep-sea vessels. The company also produces steels for special shipbuilding markets such as oil and gas, and cryogenic transport.

ArcelorMittal Ringmill, located in Belgium, specialises in the manufacture and heat processing of rolled ring products. ArcelorMittal Ringmill operates a state-of-the-art ring rolling mill and an extensive range of heat treatment equipment. This enables us to design and manufacture perfect steel rings for marine and offshore applications such as winches, gearboxes, cranes and propulsion and thrust systems.

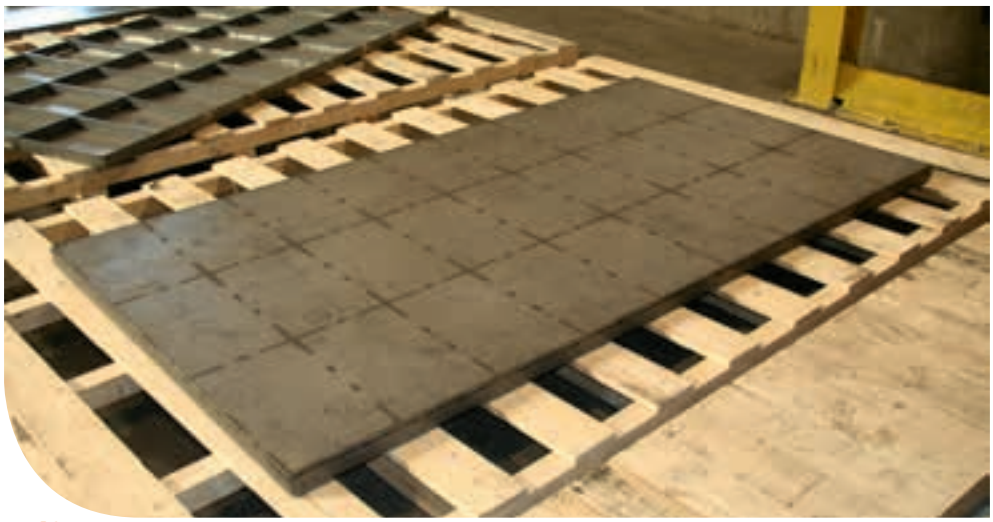
*ArcelorMittal Ringmill produces a range of seamless rings for shipbuilding applications.*

## Matrix panels provide lighter solutions for shipbuilders

ArcelorMittal Global R&D has developed a new type of sandwich panel for shipbuilding applications. Known as matrix panels, the bi-directionally stiffened sandwich panels provide high stiffness at relatively low weight.

This patented solution from ArcelorMittal is specifically designed for each application (for example, deck panels, ramps and balconies). As they are fully metallic and welded, matrix panels have excellent durability. They can be joined using common welding techniques, allowing for easy assembly in the shipyard.

Matrix panels allow shipbuilders to reduce the weight of decks, ramps and balconies.



## Full range of electrical steels for propulsion and energy generation


Ship propulsion systems must develop high torque. However, due to the limited space available for cooling, power density must remain low. As ship engines do not run at high speeds, a medium-loss fully processed grade with excellent permeability (torque) and superior thermal conductivity (cooling) is required.

These demands are met by ArcelorMittal's electrical steel grades which feature the letter P (for permeability) in their name such as M330P-35A, M400XP-50A or M470P-65A. The exact grade selected depends on the efficiency target for the propulsion motor.

Onboard electricity is generated by high efficiency generators which enable the ship to maximise electricity production while using the least amount of fuel. The best electrical steel for onboard generators is a low loss, fully processed grade. Our new continuous annealing line at ArcelorMittal St. Chély d'Apcher (France) has enabled ArcelorMittal to push our 0.5 mm grades so they achieve the same loss level as grade M230-50A. We are continuously expanding our low loss portfolio.

### More info:

Flat Products: industry.arcelormittal.com

ArcelorMittal Industeel: industeel.arcelormittal.com

ArcelorMittal Ringmill: ringmill.arcelormittal.com

# ArcelorMittal to launch new toolbox for architects

## Steel Envelope showcases a selection of our aesthetic steels for construction

**In order to stimulate dialogue with architects and customers, ArcelorMittal Europe – Flat Products has launched Steel Envelope. Consisting of a landmark book and a dedicated website, Steel Envelope gives architects, designers and specifiers a chance to touch and feel ArcelorMittal's construction products. Steel Envelope includes ArcelorMittal's pre-painted and metallic coated steels for both interior and exterior building applications.**

*Steel Envelope includes large format images and details of ArcelorMittal's construction steels and finishes.*


*Porsche Centre.*

Steel Envelope enables ArcelorMittal to reach architects, engineering offices, contractors and project owners in a new way. "As manufacturers of industrial flat steel, ArcelorMittal only offers part of the final construction system. However, it is important for us to connect with architects as our products provide a significant contribution to the final aesthetics of a building and architects are key stakeholders in the construction business," explains Jérôme Guth, Manager of Business Development Construction for ArcelorMittal Europe – Flat Products. "Our goal is to show them a selection of ArcelorMittal's high performance and aesthetic products which they can select for the facades or roofs of their future projects."

From the Steel Envelope website, customers and architects can view product information and data sheets, find inspirational images to spark creativity or order product samples. The website and book are not just for architects though. "Anyone who transforms an ArcelorMittal pre-painted coil into building systems such as aesthetic cassettes, panels or tiles will find a wealth of useful information in Steel Envelope," notes Jérôme Guth.

### Steel Envelope in print

A limited edition Steel Envelope book has been published and will be distributed to architects across Europe. As well as detachable samples, the book features large format images and practical details about each construction steel grade and finish.

The samples can be easily removed so that they can be viewed in real-life interior or exterior lighting conditions. Samples of ArcelorMittal's metallic (Magnelis®, Aluzinc® Florelis, and Indaten®) and pre-painted (Granite® and Estetic®) steel finishes are presented.

Like the Steel Envelope website, the book includes a product selector which helps architects and designers select the right steel for the right application. Important information about colour ranges, guarantees and product features is available at your fingertips.

*Metal Foundation (Asturias, Spain), Architect [baragaño].*


For more information about Steel Envelope, please visit industry.arcelormittal.com/steelenvelope

# Aluzinc® stars in flagship of French sport

## The prestigious metal coating for prestigious projects

**With the Euro 2016 football championship on the horizon, Saint-Etienne's famous Geoffroy-Guichard Stadium is currently undergoing a major makeover featuring new facades made from Aluzinc® Florelis. This unique steel coating offers a one-of-a-kind finish, specifically tailored for modern and contemporary structures. Aluzinc® Florelis adds the creative touch which transforms a building from unique to remarkable.**

Nicknamed the 'Cauldron', the Geoffroy-Guichard Stadium was built in 1930 in the English style (a rectangular shape with no corner stands) and quickly became an emblem of European football. To bring the stadium into the 21st Century, architectural firm Chaix & Morel and Associates has designed a new, semi-transparent facade which surrounds the stadium on four sides.

Made from ribbed and perforated steel sheets, the design allows light to filter through the facade. To ensure that the Cauldron's mythical, unique and original look is maintained, the rough and angular character of the stadium has been kept. At the same time its image has been enhanced with the natural sheen of Aluzinc® Florelis supplied by ArcelorMittal Europe – Flat Products.


*The Geoffroy-Guichard Stadium in Saint-Etienne will shine out day and night thanks to its new Aluzinc® Florelis cladding.*

### Aluzinc® Florelis reflects light, day and night...

Made by ArcelorMittal Construction (France), the facades are clad with Aluzinc® Florelis and feature a perforated trapezoidal profile to improve the external appearance of the stadium during daylight. With its silvery aspect, Aluzinc® Florelis offers excellent heat and light reflectivity, and extended durability due to its thin, transparent surface layer of aluminium oxide.

The facade's supporting structure (also supplied by ArcelorMittal Construction) is combined with square, stainless steel mirrors to produce a magical visual effect. During the day, sunlight is reflected through the facades. At night the stadium seems to come to life as the stadium's lighting creates opaque motifs on the facades. The use of the Aluzinc® Florelis metallic coating has created the innovative architectural expression sought by Léon Grosse, the company in charge of the renovation.

There are a multitude of applications for Aluzinc® Florelis in the construction industry. Whether it is a show facade, traditional or perforated cladding, solar shading, photovoltaic applications, or even interiors, Aluzinc® Florelis will make a dynamic impact on any project. ■

## More than just Florelis in the Aluzinc® range

Produced at ArcelorMittal Dudelange (Luxembourg), the Aluzinc® coating is an alloy containing 55% aluminium, 43.4% zinc and 1.6% silicon. It is available as three different products for specific applications:

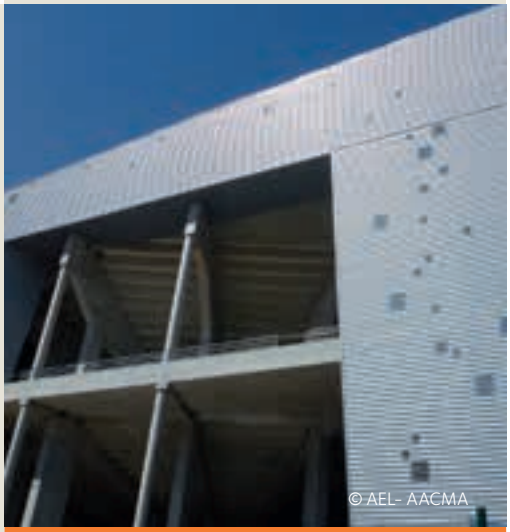
- Aluzinc® HFX (High Formability eXtended) is designed for standing seam roofs due its exceptional transformation capacity
- Aluzinc® Florelis has a guaranteed spangle density of between 1,000 and 1,800 spangles per $dm^2$ for landmark buildings
- Aluzinc® NSB has a lower spangle density than Florelis and is designed for heating, ventilation and air-conditioning (HVAC) applications

## Aluzinc® Florelis for landmark projects

Commonly used for 'show' facades, Aluzinc® Florelis has an excellent reputation among leading European architects. It has already been specified by renowned architecture firms including Claude Vasconi, Jean Chabanne, Art & Build, and Jacques Ferrier.

The smooth, clean appearance of Aluzinc® Florelis and its extraordinary natural brightness, offer significant advantages and allows architects to stretch their imagination. Aluzinc® Florelis is suitable for both internal and external applications. Built examples include a school in Cavaillon (France), the Airbus Delivery Centre in Toulouse (France), the FIRA 2000 Centre in Barcelona (Spain), a new hangar at Rzeszów-Jasionka Airport (Poland), and the very modern Jauréguiberry Sport Hall in Toulon (France).

ArcelorMittal is so confident of Aluzinc® Florelis' ability to withstand corrosion that we back the AZ185 coating with a 25-year warranty against perforation! The combined effect of zinc and aluminium ensures that Aluzinc® Florelis performs better than steel sheet protected solely with pure zinc or aluminium. Our exceptional warranty is another reason why Aluzinc® Florelis is now regarded as one of the most durable and contemporary metallic coating solutions.




For more about the Aluzinc® range for facades, please visit: industry.arcelormittal.com/facades

# A local approach, globally

## ArcelorMittal International extends the reach of ArcelorMittal Europe – Flat Products

**With activities covering 105 countries, ArcelorMittal International is well placed to extend the reach of ArcelorMittal Europe's business lines including Flat Products. The organisation spearheads the sales of ArcelorMittal's complete product range in new and established markets by cutting language and cultural barriers, developing strong client relationships and enhancing customer loyalty through unbeatable solutions and services.**

ArcelorMittal International works closely with ArcelorMittal business lines to coordinate their international activities. Working in tandem with units such as ArcelorMittal Europe – Flat Products, ArcelorMittal International establishes well-documented short- and long-term strategies.

ArcelorMittal Europe – Flat Products has a long-term strategy to increase sales of its downstream and high added-value products in emerging markets. "ArcelorMittal Europe – Flat Products aims to develop a stable non-European customer base," explains Rajesh Saigal, CEO of ArcelorMittal International. "The idea is to move away from exporting commodity hot rolled coil (HRC) and towards downstream products with added value such as Magnelis®."

Over the first three quarters of 2014, ArcelorMittal International has increased the percentage of high added-value products exported by 3% compared to 2013. Exports of commodity grade HRC have dropped by 4% over the same period. Downstream products have accounted for 60% of exports in 2014, up 4% over 2013. "European products such as Magnelis® and Granite® are proving extremely popular with international customers," notes Rajesh Saigal.

### Customer loyalty enhanced

Customers also benefit from ArcelorMittal International's global approach. "My team includes people from more than 40 different nationalities. This enables us to overcome the language barrier which is sometimes the most critical barrier of all. It also helps build relationships," explains Rajesh Saigal. "Local or regional teams also help improve our understanding of markets and the way business is done there. We turn this large, global organisation – ArcelorMittal – into a local partner with access to the largest range of cutting-edge steel products in the world."

ArcelorMittal International has a dedicated IT team which develops interfaces to all ArcelorMittal business units. "This helps us tap directly into ArcelorMittal Europe

### ArcelorMittal International offices around the world

## Electrical steels from St. Chély d'Apcher go to US and India

During 2014 ArcelorMittal International has increased its sales of non grain oriented (NO) electrical steels by over 140%. Produced at ArcelorMittal St. Chély d'Apcher (France), the steels offer customers a choice between permeability, thermal conductivity, punchability and very low losses, even at higher frequencies. More than half of this steel will be used in high reliability electric motors with low core losses (typically non-oriented grades M230 to M290).

ArcelorMittal International has already added a total of 27 new clients in 2014, 15 of which come from the US alone. During 2014, ArcelorMittal International USA will ship over 6,500 tonnes of electrical steel to one customer in a just-in-time delivery agreement which includes complex stocking arrangements, land and sea logistics, and invoicing operations linked to a unique discounting programme.

New electrical steel clients have also been added in India where sales have doubled in the past year. Despite major competition, ArcelorMittal International has also maintained its share of the Chinese market for electrical steels.


© Jan Lipina

"ArcelorMittal Europe – Flat Products aims to develop a stable non-European customer base"

Rajesh Saigal, CEO of ArcelorMittal International

systems and enables our staff to enter, manage and follow-up customer orders directly from remote locations," notes Rajesh Saigal. The business also has the flexibility to tailor credit terms to the needs of the local customer.

ArcelorMittal International is also able to offer unique trade finance solutions which can help clients in markets where local financing costs are high. "At the same time we manage our internal cash flow with a unique discounting programme which enables us to secure 100% of our receivables," notes Rajesh Saigal.

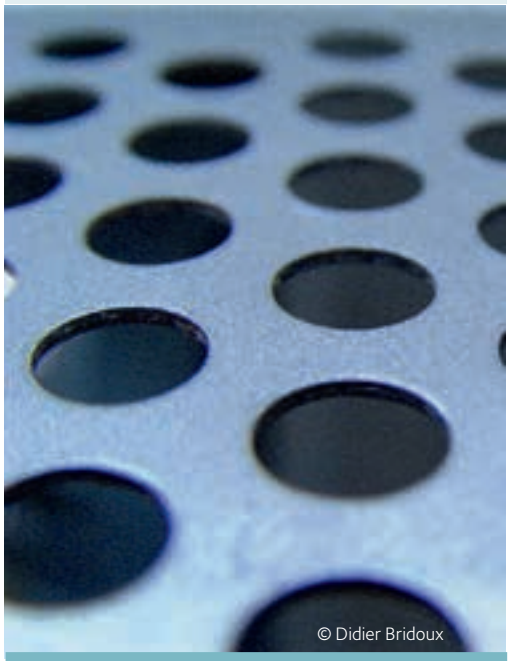
ArcelorMittal International staff have a deep understanding of ArcelorMittal Europe's product portfolio. "Our people are a bridge between the client and the mill which ensures a seamless flow of information. They organise client visits and work in close contact with the technical teams to coordinate customer needs in terms of product quality and solutions," says Rajesh Saigal. "In turn this improves their technical knowledge and further strengthens the relationship between ArcelorMittal and the customer, increasing loyalty." ■

## Expanding the market for Magnelis®

ArcelorMittal's Magnelis® coating has already proven popular in Europe with operators of large solar installations and in other applications.

Created from zinc, aluminium and magnesium, Magnelis® offers unique protection for steel in the harshest environments. In addition to outstanding corrosion resistance, Magnelis® self-heals on cut edges and provides the most cost-effective alternative to aluminium, stainless steel and batch galvanisation. It is particularly adapted to ground-based solar installations as its corrosion resistance is maintained in soil and concrete.

Due to the unique properties of Magnelis® it is in high demand around the world. Since the beginning of 2014, ArcelorMittal International has added another 15 Magnelis® customers and increased sales outside Europe by almost 250%. "We have a number of ongoing trials with customers from across the world and in segments such as solar, post-galvanisation (safety barriers, lighting poles), construction (rain gutters, facade systems) electrical (cable trays, switching boards), and agriculture (silos)," notes Rajesh Saigal. "The trials will demonstrate the potential of Magnelis® and support the growth of this business, and its market share, in 2015 and beyond."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To find your local ArcelorMittal International office, please visit: corporate.arcelormittal.com/who-we-are/interactive-map

# Transforming efficiency

## Improved grain oriented electrical steels meet 2015 energy efficiency targets

**ArcelorMittal's latest generation of grain oriented (GO) electrical steels will ensure transformer manufacturers can meet new European energy efficiency targets scheduled to take force in July 2015. Four improved grades have been developed by ArcelorMittal, making it possible for transformer manufacturers to reduce losses at any working point while slightly reducing the active material mass. These electrical steels are already in production at ArcelorMittal Frýdek-Místek (Czech Republic).**


*ArcelorMittal's stand at the Coil Winding Expo (CWIEME) in Berlin where the improved GO steels were launched at the end of June.*

The new grades – M105-23S AM FCE, M114-27S AM FCE, M117-30S AM FCE and M125-35S AM FCE – have been designed for medium power transformers. Available in the same four gauges as standard GO grades, the improved electrical steels perform at a level between existing conventional and high-permeability grades. This enables manufacturers of transformers and transformer cores to achieve a good balance between performance and cost. The improved steels were launched during the Coil Winding Expo (CWIEME) in Berlin at the end of June.

### Anticipating needs

"When it comes to purchasing electrical steels, we've noticed that customers are basing their decision on overall lifetime costs rather than initial outlay," notes Sigrid Jacobs, Portfolio Director for electrical steels at ArcelorMittal Global R&D. "Customers want the best performance in terms of energy consumption, emissions and service life, particularly for transformers that run continuously. Our improved GO offer is an excellent solution."

In Europe, the key driver for this change in emphasis has been the implementation of regulation EU548 in May this year. EU548 requires manufacturers to meet defined efficiency targets for different sizes and types of transformers (see the example of a 1 megavolt ampere (MVA) dry-type transformer in Table 1). The first targets – known as Tier-1 – must be met by mid-2015, a relatively short time in product

### ArcelorMittal Frýdek-Místek leads the world in production of GO steels

Grain oriented electrical steels (GO) are used in the cores of transformers which reduce or increase the voltage of an alternating current. Their superior magnetic properties and insulating coating significantly reduce electric power losses from the transformer.

The process of manufacturing GO steels is very demanding. It requires researchers, engineers and operators who have a high level of knowledge, experience and skills. Worldwide, very few companies are capable of manufacturing GO to the high standards required, but ArcelorMittal Frýdek-Místek has been doing it since the early 1960s.

The mill has been selected to produce ArcelorMittal's improved GO electrical steels. ArcelorMittal Frýdek-Místek is equipped with a state-of-the-art decarburising annealing line and a new thermo-flattening line equipped with a unique inspection system. The modern annealing line ensures the GO steel has a low final carbon content which prevents the steel from ageing. Brand new, energy efficient furnaces have recently been installed at Frýdek-Místek to improve performance.

*The Shape Scan system installed at ArcelorMittal Frýdek-Místek measures strip flatness using lasers.*

development cycles. Stricter Tier-2 limits will come into force from July 2021. ArcelorMittal's improved GO electrical steel grades make it possible to reach these targets already.

## Proven to work

ArcelorMittal Global R&D undertook two case studies using the improved M105-23S AM FCE and M117-30S AM FCE grades to demonstrate the benefits of using the new GO grades. A small- and a medium-sized transformer were studied. In both cases, the two-dimensional design of the transformer was maintained, but the stack height was optimised to take advantage of the new steels.

The study showed that for medium transformers it is possible to meet Tier-1 efficiency targets without changing the gauge of the electrical steel and with a smaller amount of active material (see Table 2). Tier-2 targets for 2021 can be met if a thinner gauge of the improved GO electrical steel is used, although compromises may need to be made between investment costs and energy losses at low or high loadings.

For small transformers, the improved GO electrical steels make it possible to reduce both no-load and loaded losses with a slight reduction in active mass. ArcelorMittal's improved GO electrical steels are now available, allowing transformer makers to meet the new EU loss targets. ■

## Table 1: Maximum losses for medium transformers with an apparent power of 1 MVA under new EU rules from 2015

| | Tier-1 (from 1 July 2015) | Tier-2 (from 1 July 2021) |
|---|---|---|
| Load losses ($P_k$) | $P_k$ < 9 kW | $P_k$ < 9 kW |
| No-load losses ($P_o$) | $P_o$ < 1550 W | $P_o$ < 1395 W |

## Table 2: Results for medium transformer with an apparent power of 1 MVA

| U1 = 10 kV/U2 = 400 V | M155-35S (conventional) $P_k$: 9 kW | M125-35S AM FCE (improved) $P_k$: 9 kW | M105-23S AM FCE (improved) $P_k$: 9 kW | M105-23S AM FCE (improved) $P_0$: 1395 W |
|---|---|---|---|---|
| No-load losses $P_o$ (W) | 1687 | 1540 | 1234* | 1385 |
| Full load losses $P_k$ (W) | 8950 | 8950 | 8950 | 7717* |
| Loss/year (MWh/y) low load (10%) | 15.4 | 14.2 | 11.5* | 12.7 |
| Loss/year (MWh/y) high load (90%) | 66.6 | 66.1 | 65.7 | 57.1* |
| Electrical steel weight (kg) | 1394 | 1288 | 1259* | 1415 |
| **Conclusion** | Does not meet Tier-1 requirements | Tier-1* | Tier-2 with minimum operational cost at low load and lightest weight* | Tier-2 with minimum operational cost at full loading* |

* Cells highlighted in green indicate the GO steel which offers the best performance.

## Complementary NO offer available from ArcelorMittal

In addition to its range of GO electrical steels, ArcelorMittal offers a complementary range of non-oriented (NO) electrical steels. NO steels are also used in transformers and motors, typically in very small units where space and/or cost is an issue.

ArcelorMittal's research teams are available to advise customers on the best type of electrical steel for their particular application. Modelling tools are also available so the impact of different material choices can be studied in detail.

For more information about our innovative range of electrical steels, please visit: industry.arcelormittal.com/electricalsteels

*New furnaces have been installed at ArcelorMittal Frýdek-Místek for high temperature annealing of electrical steels.*

*The new thermo-flattening line at ArcelorMittal Frýdek-Místek is used for continuous annealing and coating processes.*

*Example of a medium-sized transformer (image by Tom D'Haenens courtesy Pauwels International NV)*

# Increasing the life and load capacity of heavy equipment

## ArcelorMittal promotes full and global offer for yellow and green good manufacturers

**Manufacturers of heavy construction (yellow goods) and agricultural equipment (green goods) are committed to increasing the load capacity and useful life of their vehicles while reducing maintenance and fuel consumption. One way to achieve these goals is to replace commodity steel grades with ArcelorMittal's range of high strength steels. Together with ArcelorMittal Industeel, ArcelorMittal Europe – Flat Products is able to offer a full range of coils or plates for any yellow or green goods application.**

ArcelorMittal's Amstrong® range enables manufacturers to reduce the structural thickness and weight of their equipment while improving load capacity. The high yield and tensile strength of these grades combined with their excellent formability, toughness at low temperatures and fatigue resistance make them an excellent solution for both construction and agricultural equipment manufacturers.


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Amstrong® steels are available as hot rolled coils and sheets in various tensile strengths starting from 240 MPa (Amstrong® 240MC) up to 700 MPa (Amstrong® 700MC). Thickness ranges from 1.5 to 20 mm. Ultra high strength Amstrong® steels are being developed with strengths in the 900 to 960 MPa range.

The ArcelorMittal Europe – Flat Products offer is complemented by that of ArcelorMittal Industeel, a wholly owned subsidiary of ArcelorMittal. Industeel produces high strength steel plates in grades S690QL to S1100QL and HB-class wear resistant plates (HB400, HB450, and HB500) in thicknesses from 4 to 150mm. Some HB400 and HB450 grades are offered today by ArcelorMittal Europe – Flat Products as coils or plates (see table or contact us for details). They are used in applications such as excavators and tipper truck containers.


© shutterstock – A. Schindl

*Advanced high strength steels from ArcelorMittal improve the load-bearing capacity of yellow and green goods while reducing weight, thickness and wear.*

ArcelorMittal is a major supplier of steels to construction and agricultural machinery OEMs, either directly through ArcelorMittal Distribution Solutions or through selected partners in Europe. Our team of expert engineers and researchers are here to help and ready to assist with co-engineering projects or find solutions for all of your welding, cutting and forming questions.

### Grades available from ArcelorMittal for yellow and green goods

| Grade | Hot rolled coil | Plates |
|---|---|---|
| S690QL/700MC | 2 to 12 mm | 4 to 150 mm |
| S890QL/S900MC | In development | 5 to 125 mm |
| S960QL/S960MC | In development | 5 to 125 mm |
| S1100QL | | 6 to 15 mm |
| HB400 | 4 to 6 mm | 4 to 150 mm |
| HB450 | In development | 4 to 50 mm |
| HB500 | | 8 to 75 mm |

S = Structural steels, high strength, low alloy (HSLA)
HB = Hardness Brinell wear resistant
MC = Thermomechanically rolled (M) and cold formable (C)
QL = Quenched and tempered (Q) low-temperature toughness (L)

For more information about ArcelorMittal's offer for construction and agricultural equipment, please visit: industry.arcelormittal.com/equipment

More information about ArcelorMittal Industeel's offer can be found at: industeel.arcelormittal.com

# Meeting the world's need for energy

## Oil and gas: from steel to solutions

**With around four million tonnes of deliveries to the energy sector per year, ArcelorMittal is the world's largest supplier to this highly demanding market. For the first time, ArcelorMittal Europe has presented its entire offer for the oil and gas industry to thousands of delegates at the ADIPEC fair in Abu Dhabi.**

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"Through our combined presence at fairs such as ADIPEC, ArcelorMittal's business lines can showcase our extensive product portfolio and the highly innovative and technical solutions we offer. Thanks to our extensive experience and global presence we are a reliable partner to the world's oil and gas industry," explains Denis Parein, Segment Manager Oil & Gas for ArcelorMittal Europe – Flat Products.

The high quality steel solutions offered by ArcelorMittal Europe – Flat Products include offshore structural grades, thermo-mechanically rolled grades for offshore (proven down to -40°C), and high strength steels for line pipes which can be used in harsh and sour environments. Our oil and gas pipes (including OCTG) can be delivered (seamless or welded) from production sites in Europe, Africa, South America, and our new seamless unit in Saudi Arabia.

ArcelorMittal's other business lines also supply steel products which are vital to the oil and gas industry. Our Krybar® concrete-reinforcing steel is designed specifically for cryogenic applications. Produced by ArcelorMittal Industeel, our 9% nickel steel plates for cryogenic applications are world class.

We also produce racks and chords for jack-up (self-elevating) rigs, and a range of sections in grades such as Histar® Offshore. These solutions meet the very severe conditions encountered by structures used in offshore applications.

"Our customers benefit from ArcelorMittal's extended range of products. But they also value our services and integrated supply chain solutions which can be implemented quickly in their challenging energy projects," explains Andre Roosendaal, CEO of ArcelorMittal Oil and Gas Projects.

ArcelorMittal works with oil and gas producers on co-engineering projects to develop new products and techniques. "Customers have ArcelorMittal Global R&D centres at their disposal to support the development of new solutions," says Ludovic Martin, Global Project Manager Energy (Oil & Gas) for ArcelorMittal Tubular Products.

With our extensive portfolio of products, ArcelorMittal can supply steels and solutions for upstream, midstream and downstream oil and gas applications.

### World primary energy demand by fuel type under IEA's 'New Policies' scenario

(in million tonnes oil equivalent – Mtoe – source IEA)

| Fuel | 2010 | 2035 |
|---|---|---|
| Coal | 3,474 | 4,218 |
| Oil | 4,113 | 4,656 |
| Gas | 2,740 | 4,106 |
| Nuclear | 719 | 1,138 |
| Hydro | 295 | 488 |
| Bio-energy | 1,277 | 1,881 |
| Other renewables | 112 | 710 |
| **Total** | **12,730** | **17,197** |

### Challenges for the global oil and gas industry

Traditional oil and gas producers are facing dwindling supplies of easily accessible resources and increased competition from the renewable energy sector. However, organisations such as the International Energy Agency (IEA) forecast that oil and gas will remain the world's major sources of energy until at least 2035 (see table).

To access available oil resources, producers must develop deeper on- and offshore wells, in remoter and colder regions of the world. Longer pipelines are also required to bring natural gas from these regions to populated areas. At the same time producers face more stringent norms and safety restrictions, particularly in pristine natural areas.

For more information please visit: industry.arcelormittal.com/energypipes

# Steel can, and does!

## ArcelorMittal's steels for beverage cans lower costs and improve sustainability

**Steels for beverage cans have undergone a revolution over the past decade. Newer, high strength steels are allowing canmakers to create designs with thinner walls and lower weight than ever. Coupled with a lower price over the longer term (up to 10% below the aluminium can) and excellent recycling rates, steels for packaging are leading a revival in the use of steel cans for beverages.**

Steel beverage cans typically require about 25% less material than those made from aluminium. The higher strength of steel means that the thinnest part of the can's body wall can be much thinner. Strength affects the ability of the can to survive handling operations such as forming, filling and transport. Thanks to its excellent mechanical properties, steel can be down gauged even further without losing its strength.

### Cost advantage

As the metal represents more than 50% of the cost of a finished can, reducing the thickness of the steel has a significant impact on cost. Beverage cans require a much thinner wall than food cans because the pressure of fizzy drinks, which can be as high as 6.2 bars, stabilises the packaging.

Current benchmarks for the thickness of flat-rolled aluminium used to produce beverage cans are around 0.24 to 0.25 mm with little possibility for further reductions. By contrast, steels for beverage packaging are already at 0.205 mm. ArcelorMittal's Global R&D teams are confident that a thickness of 0.195 mm is achievable in the near future.

### Steel's role in innovating the beverage can

Historically, the DWI beverage can was a highly standardised package with a body diameter of 66 mm and a capacity for 330 or 500 ml of liquid. That began to change in 2004 with the introduction of the steel 'Sleek' can. With a 58 mm diameter, the can is easier for small hands to grasp. Its slender aesthetic appeal has led to a revolution in the canned drinks market.

A recent innovation from ArcelorMittal was the development of the 'steel cup' can. Shaped like a drinking cup, the can is easy to stack when empty, making transport from the canmaking to the filling line much more economical and environmentally friendly. In addition, the easy-open lid leaves a smooth edge, ideal for sipping a beverage.

*The stackable 'steel cup' can designed by ArcelorMittal Global R&D for instant drinks on the go.*

### Outstanding efficiency

ArcelorMittal produces five grades of steel for packaging with yield strengths ranging from 330 to 430 MPa (see table). Grades with higher yield strengths are typically recommended for the most demanding applications, especially where thinner steel

## Steels for packaging add value in circular economy

According to the Association of European Producers of Steel for Packaging (APEAL), more than 2.7 million tonnes of steel packaging were recycled in 2012, the latest year for which data is available. On average, 74% of all steel cans were collected in Europe and recycled to make new steel products.

By 2020, the European steel industry aims to increase the recycling rate of steel packaging to 80%. "I have no doubt this target will be achieved," notes Catherine Jung, Environment and Recycling Manager for ArcelorMittal France. "There is room for improvement considering that some packaging waste still goes to landfill today. Our goal is to ensure that no metal packaging is disposed of in this way by 2020."

All the steel packaging that is recovered is recycled to create new steel products. This 'closed material loop' takes advantage of steel's infinite recyclability. By contrast with other materials, steel does not need to be down cycled into lower value products, making it a valuable commodity in the circular economy. A tonne of recycled steel saves over 1.5 tonnes of $CO_2$ emissions, 2 tonnes of raw materials and uses 70% less energy than producing steel from virgin materials.

## Steels for DWI beverage and food cans

| Grade | Yield strength (MPa)* | Thickness (mm) | Width (mm) |
|---|---|---|---|
| TH330** | 330 | ≥ 0.205 | ≤ 1,230 |
| TH360** | 360 | ≥ 0.195 | ≤ 1,230 |
| TH390 | 390 | ≥ 0.195 | ≤ 1,205 |
| TH410 | 410 | ≥ 0.190 | ≤ 1,205 |
| TH430 | 430 | ≥ 0.180 | ≤ 1,205 |

* Yield strength ±30 MPa
** Principal beverage grades

## ArcelorMittal leads the world in steels for packaging

During 2014, ArcelorMittal Europe – Flat Products is forecast to produce over 130,000 tonnes of steel for beverage packaging, around 29% of the European market. Steels for packaging are produced at ArcelorMittal Florange (France) and ArcelorMittal Avilés (Spain). These mills are located close to the main European canmaking and filling plants to ensure the most effective level of logistics and service.

As the world's leading manufacturer of steels for packaging, ArcelorMittal offers canmakers and brand owners:

- Long-term and stable pricing solutions
- Steel with advanced properties which maximise down gauging
- Strong technical support for R&D to maximise production efficiency
- An efficient supply chain for just-in-time deliveries
- Excellent cost performance compared to other materials such as aluminium

thickness is required. Tailor-made steels for packaging are created to meet the needs of individual canmakers or fillers. By contrast, there is just one standard grade of aluminium for beverage packaging.

Thanks to the robustness of steel, a steel drawn wall ironed (DWI) canmaking line runs with outstanding efficiency. During cold forming, the steel remains quite soft, but hardens when the can is heated to fix the interior lacquer or external print. Steel's magnetic property not only makes the handling and transportation of cans through the forming, print and filling phases much easier, it also facilitates cost-efficient recycling when the can enters the waste stream. ■

## Recycling rates for steel packaging in 29 European countries in 2012

| Country | Recycling rate 2012 |
|---|---|
| Austria | 62% |
| Belgium | 94% |
| Bulgaria | 70% |
| Cyprus | 69% |
| Czech Republic | 76% |
| Denmark | 58% |
| Estonia | 67% |
| Finland | 69% |
| France | 77% |
| Germany | 93% |
| Greece | 42% |
| Hungary | 84% |
| Ireland | 74% |
| Italy | 76% |
| Latvia | 74% |
| Lithuania | 68% |
| Luxembourg | 76% |
| Malta | 30% |
| Netherlands | 91% |
| Norway | 79% |
| Poland | 47% |
| Portugal | 77% |
| Romania | 77% |
| Slovakia | 68% |
| Slovenia | 40% |
| Spain | 84% |
| Sweden | 78% |
| Switzerland | 86% |
| United Kingdom | 56% |
| Average | 74% |

For more information about ArcelorMittal's steels for packaging, please visit: packaging.arcelormittal.com

# Excelling in pre-painted steel

## ArcelorMittal strengthens involvement with ECCA

**Chantal Bretton of ArcelorMittal Distribution Solutions (AMDS) was elected President of the European Coil Coating Association (ECCA) at their May 2014 Annual General Meeting. The appointment comes at an extremely important time for the organisation as it launches its ECCA Premium® quality and sustainability label for pre-painted metal products.**

*Chantal Bretton at the ECCA Annual General Meeting where she was elected President of the association*

Founded in 1967, the European Coil Coating Association (ECCA) represents more than 120 companies active in coil coating. This includes coil coaters such as ArcelorMittal, paint suppliers, and research institutes. Since its foundation, ECCA has played a vital role in developing tests for coated coils. ECCA's methods were incorporated into the European standard (EN 13523) for testing coil coated metals.

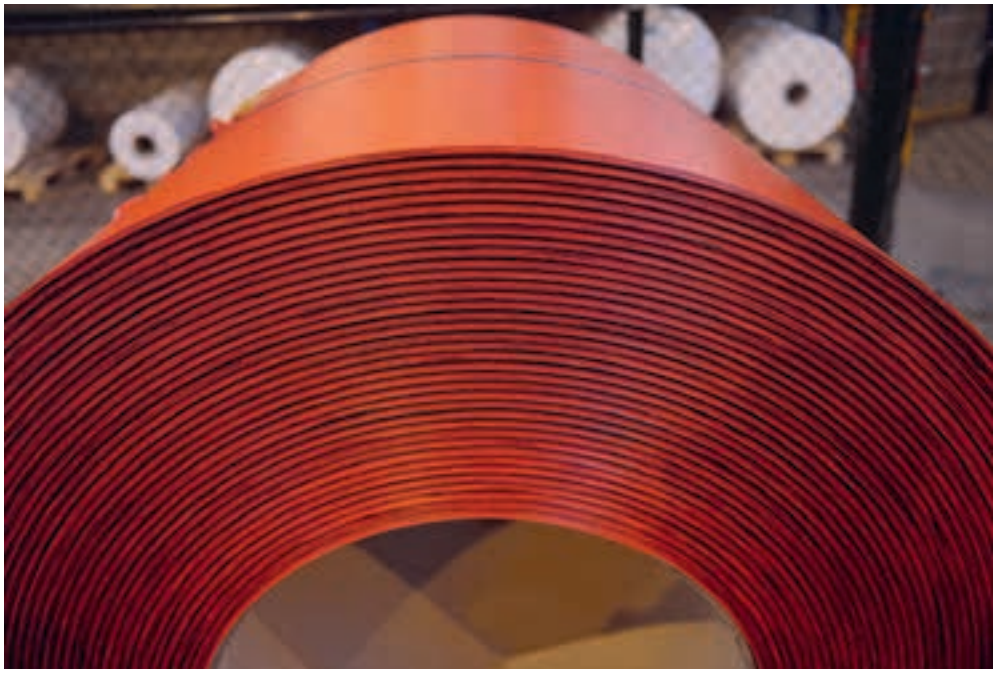
### Monitoring and promotion

ECCA's main mission is to promote the use of pre-painted metal products for both interior and exterior applications. About 70% of the products produced by ECCA members are used in exterior applications. The remainder are used in interior applications such as home appliances, ceilings, lighting, lifts, decorative walls, and furniture. Through case studies on the ECCA website and in its magazine, specifiers are able to gain a deeper understanding of the advantages and infinite finishes of pre-painted metals.

ECCA has a number of working groups which take an active interest in specific subjects relating to coil coating. For example, ECCA's Technical Working Group undertakes an annual update of European norms (EN standards) on pre-painted metal products.

### Save the date: ECCA and ArcelorMittal invite customers to Spring 2015 Conference

ArcelorMittal would like to extend a warm welcome to its customers who wish to attend ECCA's Spring Conference which is to be held in May 2015 in Krakow (Poland). The event will provide customers with the latest information on coil coating and includes a visit to the ArcelorMittal Świętochłowice organic coating line.



"ArcelorMittal customers benefit from our membership of ECCA through access to the organisation's biannual conferences, newsletters and reports. The ECCA Academy provides a valuable training resource for the employees of our customers and students of architecture. It enables anyone to develop their ability and experience with pre-painted metal."

Chantal Bretton,
President of ECCA

## The ECCA Premium® label

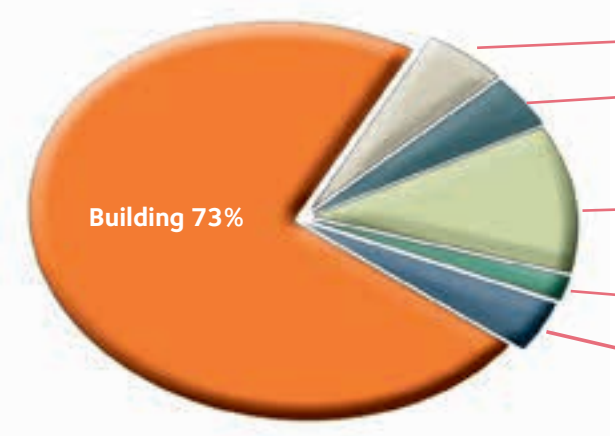
The ECCA Premium® label ensures the quality and sustainability of pre-painted metals for outdoor applications. ECCA developed the label to differentiate quality products which meet European standards from inferior imports. Speaking on her appointment as President of ECCA, Chantal Bretton noted that the quality label will "Affirm the excellence of European pre-painted products."

ECCA members have been able to apply for the ECCA Premium®label since mid-September 2014. Certification is carried out by a panel of independent certification bodies. Once a line is certified, the ECCA Premium®label can be applied to any product produced on that line. Additional random inspections are performed to ensure continued compliance. Non-European producers of coated coils can also apply to be certified.

ArcelorMittal plans to obtain certification for its coated products and was one of the first companies to apply for the label in September 2014.

For more information about the ECCA Premium®label, please visit: www.eccapremium.com

## Main markets for the pre-painted products produced by ECCA members in 2013




A current subject of interest to the Technical Working Group is the salt spray tests which are traditionally used to certify coated coils. Existing tests are too severe for many projects as they mimic a highly corrosive marine environment. It has never been demonstrated that the results of the accelerated salt spray test correlate with the performance of coated products in outdoor conditions. The Technical Working Group's goal is to harmonise efforts to develop a new standard which will accurately predict corrosion in real-life situations.

Twice a year ECCA holds conferences which provide a platform for members to exchange innovative ideas to improve product or process performance, promote coated products, and to inform members about new and prospective legislation which could affect the industry. Customers of ECCA members are also invited to these events, giving them access to the latest information and coil coating volume statistics.

■

For more information about ECCA, please visit: www.prepaintedmetal.eu.
The ECCA Academy can be accessed directly at:
www.prepaintedmetalacademy.eu

# Making it easier to put the right steel in the right place

## Online Automotive Product Catalogue gets a complete revamp

**First developed in 2008, ArcelorMittal Europe's online Automotive Product Catalogue has just undergone a total revamp to enhance the user experience and make information more accessible. The site now includes a news alert feature which will ensure customers have the latest information delivered to their fingertips.**


*The Automotive Product Catalogue is regularly updated, for example when the new range of Fortiform® steels for cold stamping was launched recently.*

The new Automotive Product Catalogue site can be searched by product range or by application. Searching by product allows users to obtain information on the entire family of ArcelorMittal steels such as our ultra high strength offer or the iCARe® range of dedicated automotive electrical steels.

Searching by application takes you to the online Selection Guide. By selecting a picture of an application, users see the European grades ArcelorMittal recommends for that application. Options are available to include best-in-class products and available coatings. Since it was published, the Selection Guide has enabled many OEMs and Tier-1 suppliers to ensure they are putting the right automotive grade in the right place in future vehicles.

> The new Automotive Product Catalogue website has been redesigned to make finding information quicker and more intuitive.

Another new feature of the site is the News Alert service. Subscribers can elect to receive the latest news immediately or on a regular daily, weekly or monthly basis. There are even options to choose the day and time you want the news delivered to your inbox. The alert can be set in less than a minute and modified or cancelled at any time.

Not only has the look and feel of the Product Catalogue been updated, new content is being added regularly. When ArcelorMittal's new Fortiform® range of steels for cold stamping was launched in September 2014, product data was immediately made available through the Product Catalogue and included in the News Alert service.

To trial the new Automotive Product Catalogue yourself, or to sign up for a news alert, please visit: automotive.arcelormittal.com/europe

More information about ArcelorMittal's steels and steel solutions for automotive can be found on our dedicated website: automotive.arcelormittal.com

UPDATE NOVEMBER/2014-EN