

Prepainted metal

The ECCA - French Group newsletter

June 2015



Special Uses and Shapes

E D I T O



You can't say that architectural creation is just style. Shouldn't architectural creation be a technical solution which creates beauty?

In this latest edition we have explored new shapes and uses for pre-coated metal by reviewing the needs and expectations of both the project managers and the contracting authorities. Pre-coated steel or aluminium is both timeless and modern and provides a long lasting and competitive solution for the building envelope. The technical

characteristics of facades can be maximised and architectural design needs met.

- Combined with insulation, pre-coated metal provides high level thermal performance and excellent air tightness.
- Used by the most audacious designers it offers a great potential for expression with an unlimited range of colours, the opportunity to choose contemporary finishes including perforations, to create any form of design and expression and to combine different sized planks and cases to create rhythm and diversity.

In this edition you will discover a range of buildings which demonstrate what projects managers, contracting authorities and architects have created in terms of « uses and shapes ».

Mario PALERMO
President of the French ECCA Group



ArcelorMittal

ecca
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groupe française

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③ Bilbao Arena

The Bilbao Arena is a new and modern sports complex situated in the Bilbao suburb of Miribilla; the architecture has been adapted to the surrounding natural environment. ArcelorMittal Construction Spain provided the steel for the striking façade, which is comprised of diamond shaped steel leaves in various shades of green. This even involved creating a new product!

Due to the undulating terrain, an “organic” design which blends into the surrounding public park was chosen.

Where: Bilbao, Spain - Architect: IDOM - Contracting party: Arena - Contractor: Province of Biscay - Photo: ArcelorMittal - Product : Aligator Seal - Organic coating : Hairflon®

Uses and Shapes



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① Hôtel deluxe "Russian Seasons"

Comprising 200 rooms the deluxe hotel "Russian Seasons" is situated in Imeretinskaya Nizmenonst close to the Olympic Park of Sochi and to the office building of The Organizing Committee Sochi 2014. Very striking in its aesthetics is the entrance part with its golden facade made of Reynolux® aluminium sheets in BRUSHED Look. It reveals many brushed aluminium similarities combining the elegant look of aluminium with the high functionality and resistance of coil-coated aluminium sheets. The surface discreetly reflects the light and colours of the environment.

The architecture of the buildings and the installation of solar panels as well as further energy efficient solutions like heatinsulation material or an efficient water and waste management are subject to meet the international standards of energy efficiency and environmental design.

Where: Sochi, Russia - Architect: Kulish and Lipatov - Contracting authority: Sevstroyinvest - Profiler: BauMetall in partnership with Delos - Product: Reynolux® Building coil-coated - aluminum sheets - Finish: BRUSHED Look, Colour: Gold - Photo: Delos®

② "Le Forum" Theatre

Le Forum is an emblematic building in the French town of Fréjus. It is symbolic in its elliptic shape, the fluid lines of a Roman amphitheatre. The construction follows a « stacked » principal and the all fixing points hidden. It reminds us of great amphitheatres with three or four levels of arcades. The architect, Jean-Michel Wilmotte has suspended sun shades in front of the glass facade. They are made from Reynobond composite panels creating a remarkable visual effect.

Where: Fréjus - Architect: Wilmotte and Associés AS - Contracting authority : Ville de Fréjus - Profiler : Acodi - Building contractor: Alquier - Product: 9955 m² Reynobond® Architecture aluminium composite panels - Colour: developed for the project.- Photograph: Alcoa Architectural Products®

④ Technoptic

EPatina effects, multidirectional surfaces, sparkling colours which change with the light... This is what we can now achieve thanks to the technological progress made in recent years in the coatings and painting sector.

New shades and finishes are emerging, allowing complete architectural integration of steel in rural or urban environments. A perfect example is Letessier Coriol architecture & urbanisme's "l'Hôtel technologique" at Château Gombert, which stands as a clear demonstration of this, with Arval's pearl range, by ArcelorMittal.

Where : Marseille - Architect : Cabinet Letessier Coriol - Product : Gascogne Color : Pearl 1343, 15B4, 11B5 - Photographer : Florent Jolio

⑤ Rectorat (Board of education)

The context of this project is an "urban archetype"; an urban periphery, tertiary sector. It is a sculpted construction where art meets an urban dimension, questioning its environment. The size and shape are largely dictated by the context.

Where: Dijon - Architect: Atelier CALC - Contracting authority: Ministère de l'Education Nationale - Shaper: GOYER - Product: Mirawall Aluminium powder coating - Colour: RAL 7024 gloss - Photograph: Lisa Ricciotti

Uses and Shapes



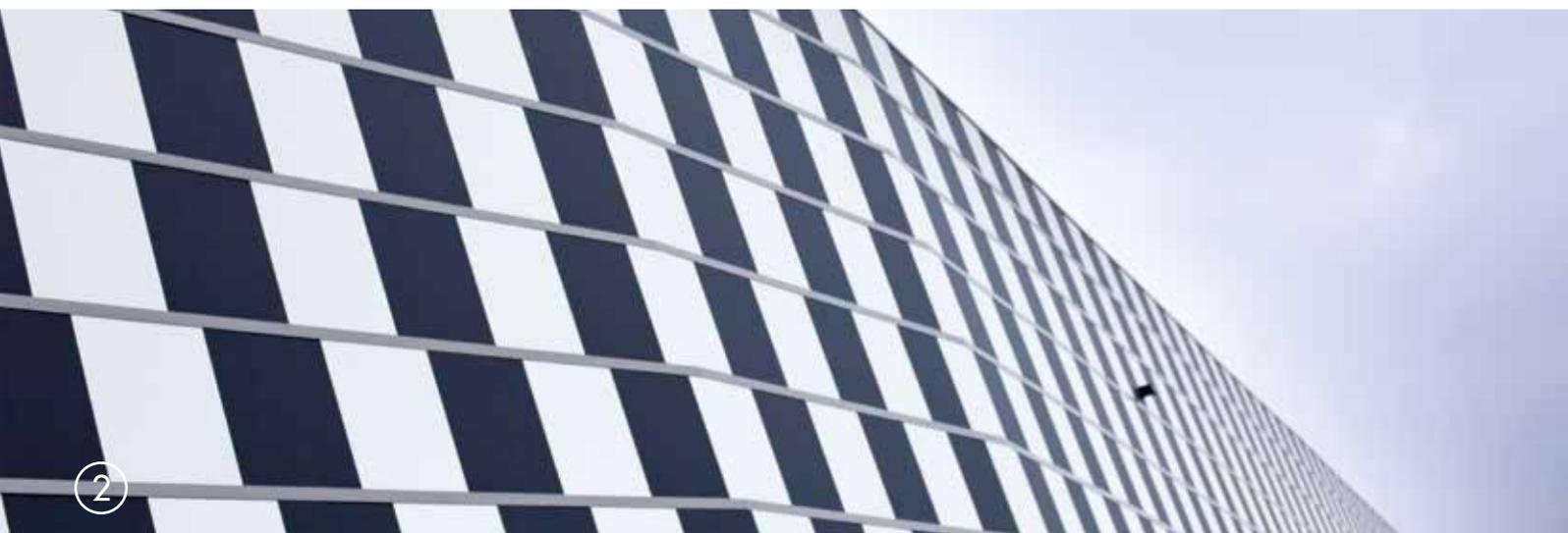
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① Residential towers “Herriot et Suisse”

The renovation of the six « Herriot et Suisse » apartment blocks aimed to improve energy performance and to make the district more attractive by offering a contemporary renovation with positive sustainability. NOMADE Architects wanted to steer away from the monotony and repetition of prefabricated concrete facades and so chose gloss effect aluminium

coated cladding with a perforated surface, fixed over solid surfaces. The result is a random layout of different textured metal cases. The two textures come in three shades; gold, bronze and champagne creating a dynamic finish to the façade.

Where: Le Mans - Architect: Nomade Architects
Contracting authority: Le Mans Habitat (OPH Le Mans Métropole) - Profiler: Inter-Pliage, Product: Reynolux® Building aluminium sheets, 1.47 mm
Colour: Champagne, gold and bronze.



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② ZAC Thillois II

This project is located to the west of Reims. The heart of the project is the architectural treatment of the facades, each distinct according to their orientation. The outer façade turns towards the road network and stands as a sign, a visual and an artistic statement; an optical illusion playing with the light and creating a cinema effect mirroring the surrounding environment.

The inner façade has been designed to show an empty space in front of the building housing boutiques. The area between the two stands like the silhouette of an open roofed house and thus this building finds its own identity as a sales area dedicated to the home.

Lieu : Reims - Commerce - SHON : 27 000 m²
Panneaux sandwichs - Promiso® lisse © Arval by ArcelorMittal - Revêtement organic : naturel

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③ Staff canteen

Approximate surface: cladding = 1100m², perforated sheet metal cases = 1200m². This staff canteen is located in the Gard area of France, on a woodland site. The building envelope is a continuous double skin made from copper coloured solid cladding on to which perforated cases of the same colour have been added. The gap between these two skins creates a private garden which also acts as a filter. The planted patios bring a garden impression from outside into the dining rooms. The outer skin can be raised to create shade, protecting the dining rooms from the summer heat. The sun shades rise to a horizontal position creating a forecourt and clearly identifying the entrance to the building.

Where: Gard County, France - Architect: Marc PIROVANO - SEQUENCES - Profiler: © Arval by ArcelorMittal Building contractor: SMAB - Product: ST500, ST900 hybrid - Colour: Intense 1968; Photograph: © Arval by ArcelorMittal

④ Stéphane DIAGANA athletics hall

This hall has a city centre location and one of the greatest challenges was coordinating the agency's drawings with the location, and the elaborate efficient roofing. The building was designed by Chabanne et partenaires and the building had many architectural constraints to consider; the outer skin needed to be heat and energy efficient and air tight. Another challenge was the rounded corners of the building, cut out to end in arrows.

Where: Lyon Duchère - Architect: Chabanne, Profiler: ArcelorMittal - Building contractor: SMAC Lyon - Product: ST 500 - Colour: Intense 1968 - Photograph: Arval by ArcelorMittal - Product : ST 500 blades from Arval by ArcelorMittal

⑤ Business Centre Emporio

This building is situated in a business park. The design takes in to account the need to group various business sectors in a sole and unique entity. The ventilated façade envelope is comprised of metallic Reynobond composite, creating a visual richness playing with the light that reflects from it. It is covered with vertical modules, representing, coherence and futurism. The vertical cases create a futuristic look, reaching up to the sky. Due to the height of each of these elements there are no joints between the ground floor and the first floor. The slope on the facade provides the building with volume whilst creating the image of a control tower. Add this concept to the Reynobond brushed finish panels and the result is a dynamic looking building, totally corresponding to the needs and wishes of the companies it hosts.

Where: Séville, Spain - Architect: Haro de Miguel Arquitectos S.C. - Profiler: ROMGOM, S.L.U. - Product: 3000 m² Reynobond® Architecture aluminium composite panels - Colour: BRUSHED Natural Aluminium - Photograph: Fernando Alda Fotografía S.L.

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① Olympic Cauldron

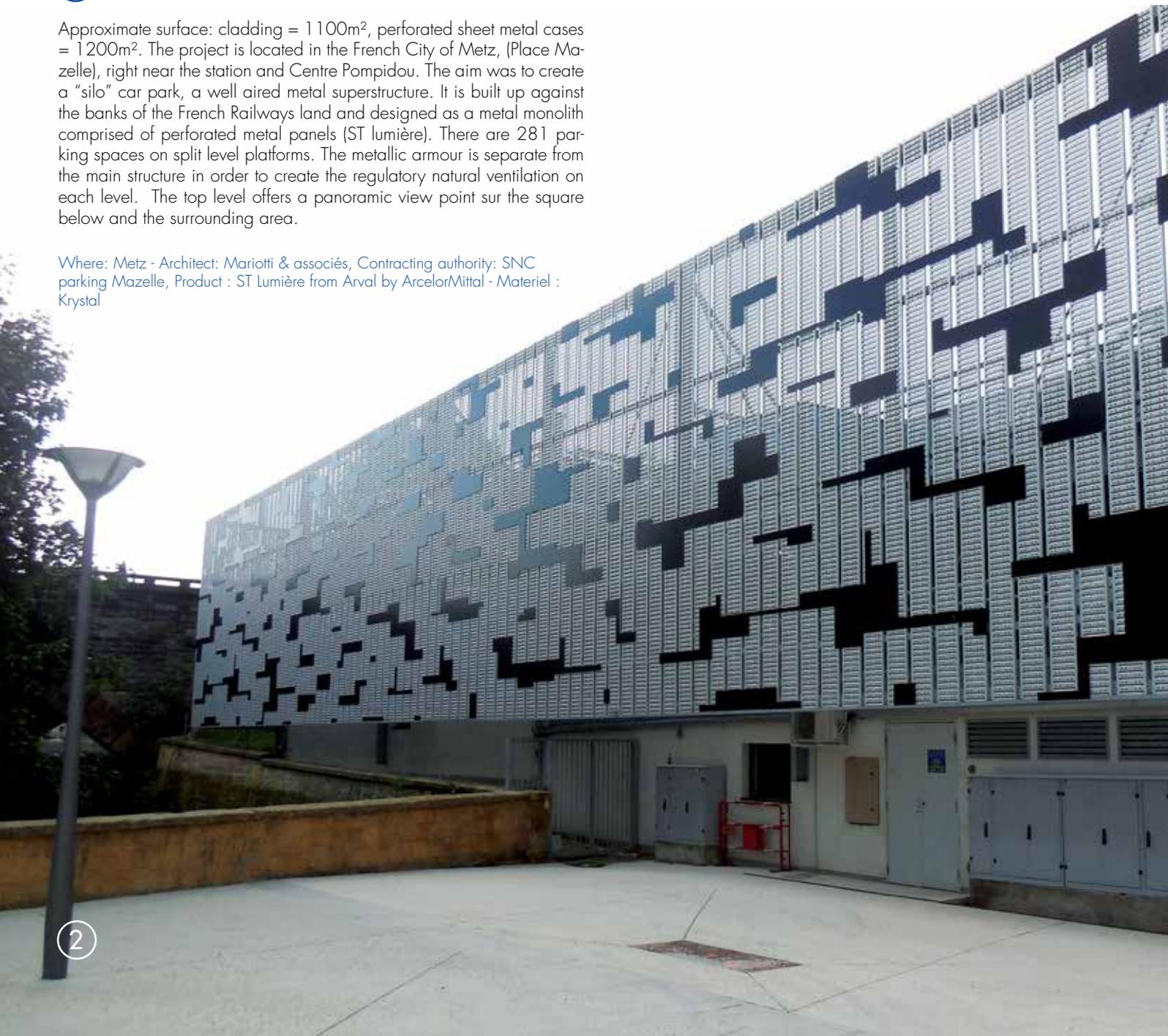
The Sochi Olympic flame is located in the centre of the round Medals Plaza. This is where the medals ceremonies took place. The Sochi Olympic torch shape is based on flowing and slender lines. The torch represents the Firebird (from the Russian folklore symbolising striving for greatness and success) the top of the structure is a torch, below, the neck and the spread wings. The Eco-Clean™ coating was used to maintain the shine due to its self-cleaning and air depolluting characteristics.

Where: Sochi, Russia - Architect: Dmitry Tatarin Contracting authority: Stroyinternational - Profiler: Horizont - Building contractor: KALZIP - Product: 7,000 m² Reynobond® aluminium composite panels, Reynolux® aluminium sheets - Colour: RAL 9016 - Coating: MattXtrem in DURAGLOSS®5000 with EcoClean™. - Photograph: Olympstroy State Corporation®

② MAZELLE Car Park

Approximate surface: cladding = 1100m², perforated sheet metal cases = 1200m². The project is located in the French City of Metz, (Place Mazelle), right near the station and Centre Pompidou. The aim was to create a "silo" car park, a well aired metal superstructure. It is built up against the banks of the French Railways land and designed as a metal monolith comprised of perforated metal panels (ST lumière). There are 281 parking spaces on split level platforms. The metallic armour is separate from the main structure in order to create the regulatory natural ventilation on each level. The top level offers a panoramic view point sur the square below and the surrounding area.

Where: Metz - Architect: Mariotti & associés, Contracting authority: SNC parking Mazelle, Product : ST lumière from Arval by ArcelorMittal - Materiel : Krystal



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Uses and Shapes



Laurent Thery : beauty and innovation

Mario PALERMO : Good morning Laurent THERY, you are Managing Director at MONOPANEL, could you tell us about your company?

Laurent THERY : Monopanel was founded in 1970. Today it is a subsidiary of Tata Steel Europe. The company was the pioneer for sandwich panels in France and built its success largely in the industrial refrigeration market and has been present on the market for over 20 years. Its know-how is recognised and acknowledged on the French market. It has belonged to several major players in the European and Global metal industry.

1996 : Cockerill Sambre

1998 : Usinor Sacilor

2000 : Usinor Sacilor merged with Arbed and Arceralia

2001 : Arcelor Mittal

2001 : Hoogovens

2003 : British Steel

2005 : Corus, which became Tata Steel Europe

With Tata Steel, the brand Monopanel benefits from the support of a global reference in the field that brings stability and the necessary resources for development.

MP : What is Monopanel's « motor »?

LT : creation of value and high technology products are at the heart of the company's DNA. We rely on the Tata Steel Europe research centre to develop new opportunities for pre-coated steel. Modular construction is the most typical example. We are the only ones in France who have three panel lines on the same site and to manufacture panels with polyurethane foam and Rockwool. This is an exceptional strength to meet the needs of an ever demanding market, both in terms of lead times and flexibility. Our « short cycle» organisation enables us to deliver customers in one to two weeks and to have a production capacity reserve in order to meet the most urgent needs. We are known for reactivity and service. The pre-coated market in France is focused on 25 and 35 micron coatings. We meet this perfectly. We also make coating with reinforced performance characteristics and anti-rust resistance with guarantees that can hold for up to 40 years.

MP : Architects are becoming more and more creative. How do you meet their needs?

LT : Links with the architects go through the COLORS (Tata steel Europe) purchasing advisors who work closely with Monopanel. Their role is to present and highlight pre-coating and the shapes and uses that pre-coating offers to Architecture Agencies, who are the major ordering parties.

MP : What can pre-coated metal offer in terms of shape designs?

LT : The bar is being raised in terms of product's technical characteristics in order to meet the demands of project managers and contracting parties: seismic, acoustic and thermal norms, fireproof, etc... Design and appearance are at the heart of our projects: "Monopanel, good looking and efficient"

We are currently focusing on solid and profiled panels which meet the "refined" trend that our customers are requesting. We can offer smooth or grooved surfaces to create a "strip" effect. Our strength lies in our ability to offer easy to install solutions and to convert a request for 'strips' to panels thus enabling building insulation.

MP : What are the current shape and use trends in the market?

LT : The designers are particularly keen on "flatness". Our strength is being able to respond with different width products to meet all requirements, for example; we can produce strips of up to 500mm width. ... Exterior thermal insulation is a high stake for us. Pre-coated metal combined with Rockwool or polyurethane are solutions that we are currently developing and will enable us to respond positively to changes in legislation for industrial buildings.

MP : Laurent THERY, thank you very much.

ECCA PREMIUM®

ECCA has launched a prestigious new sustainable quality label. The European Coil Coating Association (ECCA) has launched a new prestigious label providing the user with the guarantee of a high quality and sustainable product. The ECCA Premium® Quality and durability label provides prepainted aluminium and steel users with value and peace of mind by guaranteeing colour sustainability, optimal rust resistance and perfect harmony with new designs. This guarantee also provides absolute certainty that the metal is coated using safe and environmentally friendly methods. With this label pre-coated metal manufacturers get ECCA Premium® quality and sustainable advantages which will make them stand out from their competitors. These labels are only awarded to pre-coaters who have successfully passed the various inspections carried out by independent auditors and have proven their capacity to manufacture in accordance with

quality and sustainability norms.

The first three companies to have been awarded the ECCA Premium® Quality and sustainability label are Hydro Aluminium Rolled Products in Norway, Novelis in Italy and Miralu in France. Others will follow shortly. Hydro was awarded the ECCA Premium® label for their aluminium based HydroCoat range of products. Noevelis for their powder coated aluminium Prof200 products and Miralu was awarded the label for their powder coated aluminium Mirawall.

Details on how to obtain the ECCA Premium® label and a list of independent certifiers can be found on the website: www.eccapremium.com

NEW ECCA MEMBERS

ARCELOR MITTAL DUDELANGE

Our only Luxembourg member, from the Flat Products segment and Atlantique-Lorraine area, ArcelorMittal Dudelange was created in 1981 under the well-known name "Galvalange" and merged with "Ewald Giebel Luxembourg" on Jan 1st 2007.

With over thirty years' experience, four cutting edge coating lines and a 920 000 tons annual production capacity, the Dudelange plant currently offers four types of metal coatings: Aluzinc®, Alusi®, Electrozingué and Usibor®. These products are aimed at multiple markets (automobile, construction, general industry, white goods...) The ArcelorMittal Dudelange steel site is not only reputed for the quality and diversity of their products but also for the remarkable safety record of their staff. The successful industrialisation of Usibor® and their incontestable European leadership in the production of Aluzinc® are a perfect illustration of the plant's competitiveness and their ongoing vision based on industrial excellence.



BASF

BASF Coatings (11.0000 employees) develops, produces and sells a range of high quality paints and innovative products for the automobile industry (new vehicles and repairs), industrial paints (including Coil-Coating and decorative). The Coil-Coating is comprised of five production sites (Germany, England, Spain, South Africa and France), on which all of the ranges are produced: primer, back side and top coat. The Clermont (Oise County) site, in France is currently being developed and offers just one product for the time being. Their production capacity will increase shortly.

Find out more about innovative roofing:

www.toiture-innovante.fr

For more information

> Contact ECCA members :

AKZO NOBEL - ALCOA - ARCELORMITTAL CONSTRUCTION FRANCE - Arcelormittal - Dudelange - ARKEMA BECKERS - BASF - CHEMETALL - HENKEL - MIRALU - NLMK Strasbourg NOVACEL - PPG - Industrials Coatings - Tata Steel Maubeuge VALSPAR

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