PLADUR® BEAUTIFIES MULTI-STORY STRUCTURES A considered of curface refined flat start products

A special class of surface-refined flat-steel products for high-quality multi-story construction

ThyssenKrupp Steel Europe Thinking the future of steel





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As one of the world's leading steel manufacturers, we see producing and marketing trendsetting materials as part of our day-to-day business. To do so, our expert and dedicated staff members draw on the vast resources of ThyssenKrupp Steel Europe: innovative capacity, cutting-edge technologies, and a wealth of experience based on a long and outstanding tradition.

One of our exceptional products is PLADUR[®]: organic, band-coated, high-quality flat steel suitable for any conceivable solution.

Discover the virtually unlimited possibilities of PLADUR[®]. On the following pages, you'll find insights into specific applications in the multi-story construction industry.

RENDIA

NRON

products that integrate harmoniously into the environment

A nature-based product, refined with a sense of responsibility.

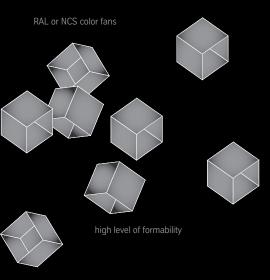
Environmental responsibility in thought and action is a core commitment of ThyssenKrupp Steel Europe. This is reflected in the product world of PLADUR[®] in various ways. Even our steel production is resource efficient, with only around one-third of the primary energy consumption required for aluminum. Our systems for band coating are also designed to include wastewater treatment and flue gas cleaning processes that reduce emissions to well below legal limits.

Where economical solutions become environmentally friendly solutions: PLADUR[®]. For the corrosion protection, PLADUR[®] uses zinc-magnesium in place of conventional galvanizing.

This drastically reduces consumption of zinc, a raw material available in limited amounts only. At the same time, our process offers even better corrosion resistance. In addition, we of course use no chromate in pretreatment and we reject ingredients that are critical for health and the environment in all processes. In place of pigments containing heavy metals, for example, we use environmentally responsible alternatives with no loss in material quality.

A prime example of environmental responsibility in action is the ReflectionsOne[®] color collection, which is ideal for using PLADUR[®] in color schemes that blend in harmoniously in natural or built environments.

From environmentally friendly production to the outstanding visual appeal of PLADUR[®] solutions, we at ThyssenKrupp Steel Europe take a holistic approach to fulfilling economical and ecological demands.



matte_glossy_metallic

Functional, colorful and beautiful.

High-quality flat steel and high-quality organic coatings add up to an endless number of outstanding options – especially when PLADUR[®] composite materials from ThyssenKrupp Steel Europe are involved.

At the center of our production process is our steel, which stands out for its pronounced strength and plasticity, alongside our zinc-magnesium coating ZM EcoProtect[®]. It ensures excellent corrosion protection and even allows a reduction in coating mass while still delivering superior corrosion resistance. reduced coating mass_increased corrosion resistanc

ERSATIE

Our organic coatings are the key to the immeasurable diversity of PLADUR[®], a huge range of options that have been fulfilling and surpassing the most varied requirements, demands, and wishes in many different industries and segments for decades.

Whether paint, film, or combinations of both coatings, there is simply nothing PLADUR[®] can't offer. Almost all colors,

Outstanding plasticity, endless surface variety: design freedom with PLADUR[®].

including shades of the RAL or NCS spectrums, are just as easy to realize as different degrees of gloss, from matte to

shiny. High-quality metallic surfaces or even highly distinctive glittering finishes are also possible. Textured surfaces that imitate natural materials like stone or wood are a further strength of PLADUR[®]. In short, PLADUR[®] gives you full freedom of design, enabling you to realize your projects in line with your decorative and aesthetic ideas.

You are also free to first complete the surface of PLADUR[®] before using the material to construct your final object. Finish first, fabricate later – this approach can often be more economical than, for example, subsequently painting individual elements. Also worth mentioning is the fact that you can easily shape PLADUR[®] without formation of cracks.



Two outstanding strengths of PLADUR®: preserving value, increasing value.

Completely reliable functionality is the top priority of PLADUR[®]. This means consistently ensuring the material's stability, resistance, and robustness – the reasons PLADUR[®] remains in good condition even after many years or even decades. Its attractive appearance over the long term makes a considerable contribution to your object's durability and value appreciation. With these proven material properties – qualities of the highest order, made in Germany, by the most experienced coil coater – you get even more: objects and creations with intrinsic value for many years to come. Our exclusive metallic

finishes like copper, titanium, or stainless steel, for example, are resistant to fingerprints and look like new after long periods of use. This is why objects and construc-

tions built with PLADUR[®] are not only easy to maintain, but may even increase in value.

PLADUR[®] has proven this point many times with its familiar materials in everyday use. But you can also count on our new surface refinements. We not only stand behind them with our trusted name, we also put them through punishing tests. That means each of our products has to prove itself before it gets the chance to convince you in everyday use under the name PLADUR[®].

The higher the demands, the better PLADUR[®].

High-quality multi-story building projects ideally combine aesthetic appeal and good functionality with a price-performance ratio that satisfies investors and users. PLADUR[®] meets each of these demands, whether used in exterior façades or interior construction and decor. The material enables planners, architects, developers, and clients to realize their project goals precisely in line with their high standards and objectives in terms of both material qualities and appearance. And when it comes to individual modules, PLADUR[®] makes it easy to shape and construct unconventional or standard elements.

PLADUR[®] is available in three quality classes, to enable you to find the perfect PLADUR[®] solution for any type of multi-story building – from daycare centers and hospitals to luxury hotels and residential or office complexes.



The quality class that convinces with top scores on almost all points.

ONESTAR

The quality class that stands out for its excellent priceperformance ratio.

> **Qualities** Pages 819

TWOSTAR

 $\star\star$

The quality class that shines in specific categories with improved performance features.

UALITIES



L



V E L Y



Always in style – from monochrome to multicolor.

In the quality class ONESTAR*, PLADUR[®] shows how to create architectural highlights in terms of color and functionality with class – without losing sight of the financial demands. The proven construc-

All you need for decades of excellent appearance.

tion material contributes to the aesthetic appeal of every type of multi-story building. Whether you use it in interior

or exterior elements, you can count on ONESTAR* solutions for excellent performance far into the future. Corrosion and UV protection, sturdiness and resistance to wear and tear are standard features. In addition, it is available in tasteful and aesthetic color finishes covering almost the entire RAL spectrum. Architects and construction engineers especially appreciate the outstanding quality of PLADUR[®] and exceptional ease of processing. Unconventional shapes, joints, and gluing – no problem. And no loss of stability.

Building owners value another advantage of PLADUR®: its exceptional price-performance ratio. Especially in the quality class ONESTAR*, the material is unbeatable – for example, compared to conventional alternatives like aluminum.



Dress up each aesthetic highlight.

Harmoniously integrated into the environment or boldly contrasting, PLADUR[®] gives you the freedom to realize your aesthetic vision. The superior quality class TWOSTAR** not only satisfies every wish in terms of color, but also offers a wide variety of surface structures, enabling you to create special material effects. And of course the prefabricated material is equipped with increased resistance to corrosion and wear. Special additional material properties are also no problem – should you require especially easy-to-clean surfaces for aesthetic reasons, for example.

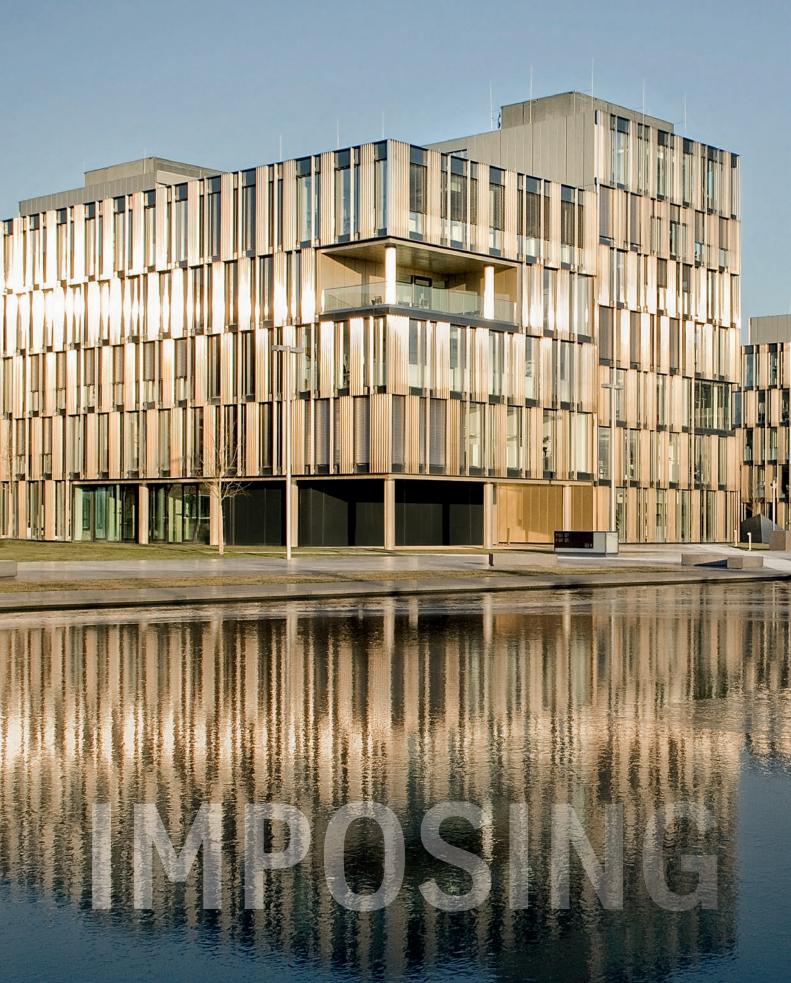
Whether you are an architect or a building owner, whatever properties and qualities you need, you can rely on the PLADUR® quality class TWOSTAR** for materials that let you realize non-standard structures. And if you are a contractor responsible for individual elements, you will value the material's exceptional versatility and ease of processing – diverse and unconventional solutions are not a problem.

A proven system for fascinating façades.



STYLISH





THREESTAR

for multi-story structure



PLADUR[®] also features exceptional corrosion protection, based on the unprecedented resistance of our zinc-magnesium coating methods. The performance spectrum also includes the highest-possible UV protection and extreme wear resistance, reflected in its capacity to stand up to scratching for example. Colorfastness is a further built-in quality – the building's strong and clear design statement won't fade away over the years.

But façades are just the beginning of the application possibilities PLADUR® offers. The range reaches up to interior and exterior ceilings and includes functional advantages like improved room acoustics in interior design.

You can also count on the THREESTAR*** quality class for excellent ease of processing, including bending, deep drawing, and profiling. It all adds up to make PLADUR® the material of choice for architects, building owners, and contractors looking for maximum freedom in creating truly outstanding buildings.

Strong impressions with the strength of steel

The purpose of corporate headquarters goes far beyond pro-

All you need for buildings with a strong personal character.

viding space and facilities for employees to carry out their work. Such a building represents the company it houses, ex-

pressing corporate values and qualities to customers and staff.

The PLADUR[®] THREESTAR*** quality class is ideal for buildings that make a strong and prestigious impression. With topquality color finishes that can be combined with individually selected surface textures, the materials give headquarters a special character and an exclusive flair – in façades as well as in interior design.

fast coordination ×× х ×/× BENCCOSF **THE CUSTOMER IS JUST PART OF OUR DAY-TO-DAY BUSINESS.**

direct channels

central contacts

Success starts with good organization.

To consistently succeed, you have to stay close to your market and the people in it. That's why intensive cooperation with our business partners, customers, and suppliers is one of our top priorities. As Europe's leading coil coater, we systematically align our organization to bring together our technology, innovation, and sales functions to meet and exceed the needs and wishes of those who use our PLADUR[®] products.

A contributing factor in this strongly focused customer orientation is close integration of our production, product development, logistics, and sales teams to ensure direct channels of communication.

Interdepartmental teamwork for increased efficiency.

This also includes setting up simultaneous engineering project teams to help

Organized to come up

reduce development times and boost efficiency in innovation with the best ideas for you. processes for our customers.

The result: We can bring innovations to market maturity faster in close cooperation with our partners.

To carry out all processes more quickly and efficiently, we host highly successful customer and innovation workshops, in addition to the customer-specific product and application consultation that ThyssenKrupp Steel Europe offers.

Interested? We're looking forward to working with you and PLADUR® to bring new ideas for success to the market – as fast as possible.

TAKING REFINED-SURFACE STEEL INTO THE FUTURE.

ntensive partnerships

up-to-date production methods

Only the best technologies are good enough.

At ThyssenKrupp Steel Europe, we're proud of our capacity to put the unique advantages of steel with refined surfaces to work in meeting people's needs and wishes – today, tomorrow, and beyond. In keeping with our traditional principles, three band-coating systems at our Duisburg and Kreuztal sites utilize the best available technologies in highly progressive and always up-to-date production methods.

To stay at least one step ahead of the times in the research and development of new materials, we always act and think beyond the boundaries of our corporate group. For example, we have formed an extensive network with specialists from the fields of science and engineering. Intensive partnerships with universities and non-university research institutes are part of our established structure.

Knowledge through cooperation.

Our consistent quality management also contributes to our ability to stay ahead – and not settle with state-of-the-art solutions. We practice total quality management that incorporates our suppliers, enabling us to realize our most ambitious goals and those of our customers and business partners. This is reflected in certifications like ISO 9001:2000 and ISO/TS 16949:2002, as well as the accreditation of research and development laboratories according to DIN EN ISO/IEC 17025. And if that isn't enough, we use the European Foundation for Quality Management (EFQM) model to further refine our management and business processes.

Focussing on top performance is our standard operating mode.

Everything aligned to serve one goal: to stay equipped to be a pioneer in every aspect of steel for our customers – always.

Head of Sales Color/ Home Appliances

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