PLADUR® ENHANCES INDUSTRIAL BUILDINGS

A special class of surface-refined flat-steel products for industrial 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 industrial construction.

RENDIA

NRON

products that integrate harmoniously into the environment

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

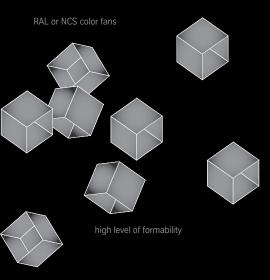
Environmental responsibility in thought and action is a core commitment of ThyssenKrupp Steel Europe. This is reflected in the product world of PLADUR[®] in various ways. Even our steel production is resource efficient, with only around one-third of the primary energy consumption required for aluminum. 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[®].

When it comes to construction or modernization of production, assembly, and warehouse halls or other commercial and industrial buildings, the key is to master one great challenge: perfect alignment of excellent functionality, attractive appearance, and an optimum price-performance ratio. PLADUR[®] gives you all you need to design exterior façades and interior construction to meet these demands. Planners, architects, developers, and clients can plan and build industrial facilities completely in keeping with the required internal material qualities and their exterior design ideas. PLADUR[®] is available to you in three quality classes, so you can find the perfect PLADUR[®] for every application area, requirement, and wish.



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

ONESTAR

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

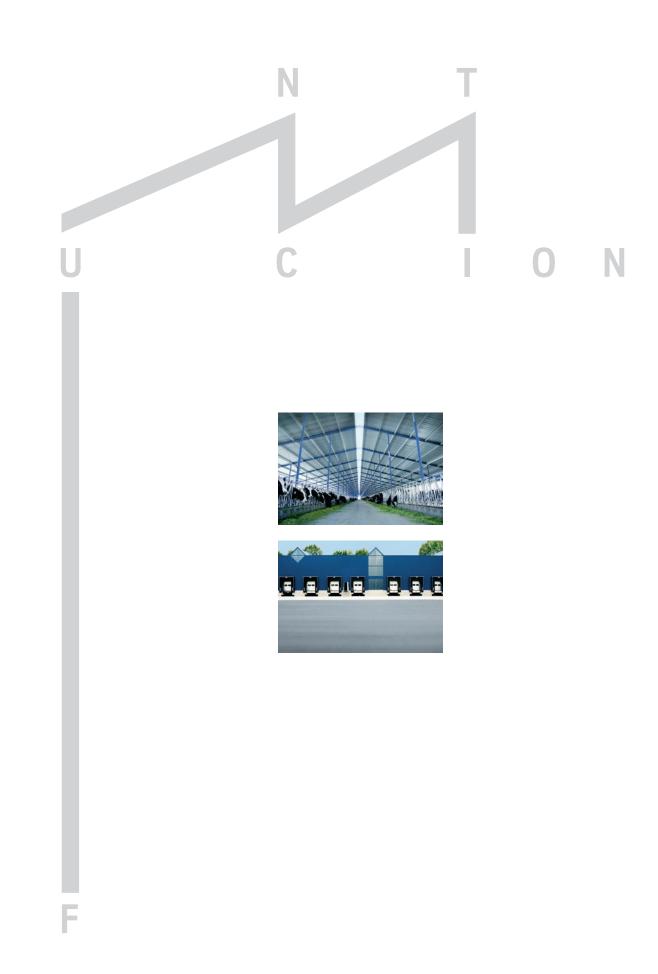
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TWOSTAR

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

UALITIES





Industrial buildings deserve to be well dressed for work.

You have only one chance to make a good first impression. That goes for every company - and its buildings. With the quality class ONESTAR*, PLADUR® offers you a proven construction material that gives any facility a refined and modern look. And it stands the test of time. Corrosion resistance, UV resistance, durability, and resistance to wear and tear are just some of the basic features you can count on in this material, which is available in tasteful and aesthetic colors including nearly every shade of the RAL spectrum. But equally important to architects and construction engineers: PLADUR® is a high-guality and easy-to-process material that can be shaped into the most unusual forms and is easy to join and glue. And all that without any loss of stability.

First-class functionality built in.

Clients greatly appreciate the exceptional price-performance ratio PLADUR[®] offers. It earns top marks compared to conventional materials, especially in the ONESTAR* quality class.

Unique character – boldly eye-catching or subtly elegant.

PLADUR® is the ideal cladding for industrial buildings designed to the highest architectural standards. The TWOSTAR** quality class gives you an unsurpassed range of possibilities. Highly refined color schemes combined with individually selected surface textures create unique decorative and functional highlights. And you can even choose from a variety of glosses including silky semi-gloss finishes. But all this beauty is not just skin deep: properties like exceptional corrosion protection, based on a zinc-magnesium coating, or its high level of UV resistance ensure a new dimension of durability. The material also offers excellent wear resistance that stands up to extremely high stresses and colorfastness that just won't quit, even after many years of exposure.

Color meets excellence in form and function.



These qualities coupled with outstanding processing versatility add up to make PLADUR® the building material of choice for component manufacturers, architects, and clients. It allows entirely trouble-free bending, deep drawing, and profiling for industrial buildings with façades to be proud of – whether they are designed to boldly stand out or blend harmoniously and subtly into the natural and constructed environment.



LOREUI

Because appearances are as important as inner values.

If you want the highest level of resistance to stresses along with an outstanding aesthetic appeal in industrial or commercial buildings, PLADUR[®] is the perfect choice. The quality class THREESTAR*** delivers corrosion and UV resistance second to none. The high-quality material enables you not only to create appealing color highlights, but also to realize distinctive



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surface structures – thanks to a wide selection of different textures. And if that isn't enough,

the prefabricated material stands up to an exceptional degree of wear Exceptionally adaptable and tear. In addition, it can be equip- ideal solutions guaranteed. ped with special coatings for proper-

ties required in the interiors of industrial buildings, including acid-resistant and easyto-clean surfaces.

Whatever colors and functional properties you need in a building material, PLADUR® has them. At the same time, you can count on it for the adaptability you need to construct elements with a perfect fit - even in the most unconventional shapes. The result: you have the freedom to design each industrial building with its very own character.



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

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.

intensive

up-to-date

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. total quality

Head of Sales Color/ Home Appliances

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