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## Exterior & Interior Application

Common substrates for architectural applications include aluminum or aluminum alloys and galvanized or unprotected steel. The products range from sophisticated to simply designed metal components or simply designed and fabricated metal components. They can be welded or mechanically joined together.

The materials to be coated for outdoor applications are usually profiles, extrusions, sheets, bars, poles or any other components already fabricated into finished façade elements, window and door frames, facings, ceilings, hand-railings or similar products.

TIGER Drylac® products are developed with the goal of meeting internationally recognized quality standards such as AAMA (USA), GSB (Germany), QUALICOAT (Switzerland), and norms which conform to ISO (International), EN (Europe), DIN (Germany), BS (United Kingdom), GB (China) – all designed for outdoor application.

For indoor application only, TIGER Drylac® Series 09 and 89 powder coatings are suggested. However, in case of similar color and surface as well as higher technical requirements for a specific project, and for practical reasons during the application process (such as cleaning of equipment) exterior grade powder coatings can be used offering a more advantageous solution.

Typical interior applications: wall and ceiling elements, metal doors, railings, landings, ventilation shafts, lamps and reflectors, radiators, metal furniture and shelves for laboratories, hospitals, medical clinics, schools, offices, shops and other places of business and storage rooms.

Toxic substances or other coating ingredients harmful to human health are not used in any TIGER powder coatings.

The “Product Matrix TIGER Drylac® Powder Coatings Colors & Metallic Effects for Exterior & Interior Application” in the next section provides all the essential information in an overview broken into TIGER Series, exterior and interior applications, performance classes, conformity to industry guidelines and norms, availability of colors, gloss levels, synthetic resin base and warranty.



For further information and technical specifications, please consult the relevant TIGER Product Data Sheets. Read more in the “TIGER Product Sheets & Specifications” section.

## Application on Aluminum

Aluminum is light, easy to shape, quite strong and resistant to weather. This combination of excellent qualities permits the design of forms and constructions that have become essential to modern architecture. Whether in façades, window and door frames, venetian blinds or other aluminum components, the common feature is a high degree of functionality combined with an almost unlimited service life, making the elements virtually trouble-free to use. In large structural components, the light weight of aluminum is the most important factor, as it facilitates ease of production, transportation, handling and assembly.

Disposing of aluminum is relatively easy, the collection of used aluminum articles is widespread, and the recycling rate is high. Recycling delivers secondary aluminum that can be used in several production cycles without a loss of quality.

Aluminum is also highly resistant to weather, which is of great importance in façade construction. The durability of aluminum is ensured by a protective oxide layer that is formed when the material comes into contact with air and renews itself whenever removed. In contrast to many other metals, the thin dense oxide layer adheres excellently and protects the metal underneath.

This natural protection against rust and corrosion can be further improved with various types of surface pretreatment.

Powder coating technology for aluminum is one of the most proven processes available. It increases the material's long-term resistance and opens up a wide range of design possibilities. TIGER Drylac® powder coatings meet national and international coating norms, as well as the widely recognized industrial quality standards AAMA, GSB, QUALICOAT. Read more in the “Approvals & Certificates” section.

## Application on Galvanized & Unprotected Steel

Steel is the predominant metal used in construction and due to its extreme tensile, flexural and compressive strength; it has become vital to construction technology. Its cost effectiveness and wide range of possible applications are important advantages.

Weathering, pollution, salt in the air, such as near the sea, and de-icing salt can corrode unprotected steel without sufficient protection, which can in turn impair or totally eliminate the structure's function. After final dismantling of steel constructions, the recycling rate is up to 100%.

Good corrosion protection of steel can be achieved by hot galvanization. With this process, steel parts are dipped into a molten zinc bath forming a zinc coating that provides a highly effective electro-chemical protection to steel, also known as cathodic corrosion protection. However, in case of additional design requirements, e.g. colors and metallic effects, the subsequent powder coating is an excellent method of further increasing the corrosion protection, as well as meeting the esthetic needs.

Powder coating of galvanized steel requires careful preparation and pretreatment of the surface to ensure optimum adhesion of the coating and full corrosion protection.

Another way of protecting steel against corrosion is to take advantage of the TIGER SHIELD dual-layer powder coating system. In this case, unprotected steel parts – after appropriate mechanical or chemical surface preparation – are coated with a specially formulated powder primer and then top-coated with a powder top coat. This unique process meets the concerns of steel corrosion and at the same time, allows for powder coated surfaces in a wide range of colors and metallic effects.

In cases where the application of a dual-layer system could be challenging, SealKor powder coating technology offers similar features and benefits of a dual-layer system in a single-layer coating system. A wide range of colors and finishes can be made-to-order.

TIGER's powder coating systems for steel comply with ISO 12944-6, ISO 20340 and DIN 55633. The highest level of corrosion resistance - up to C5 I (industry) and C5 M (maritime) as well as durability range of "high", which means durability is expected for a period of more than 15 years.