

# Charging Stations

Enabling Electrification: Coating solutions for  
EV charging infrastructure







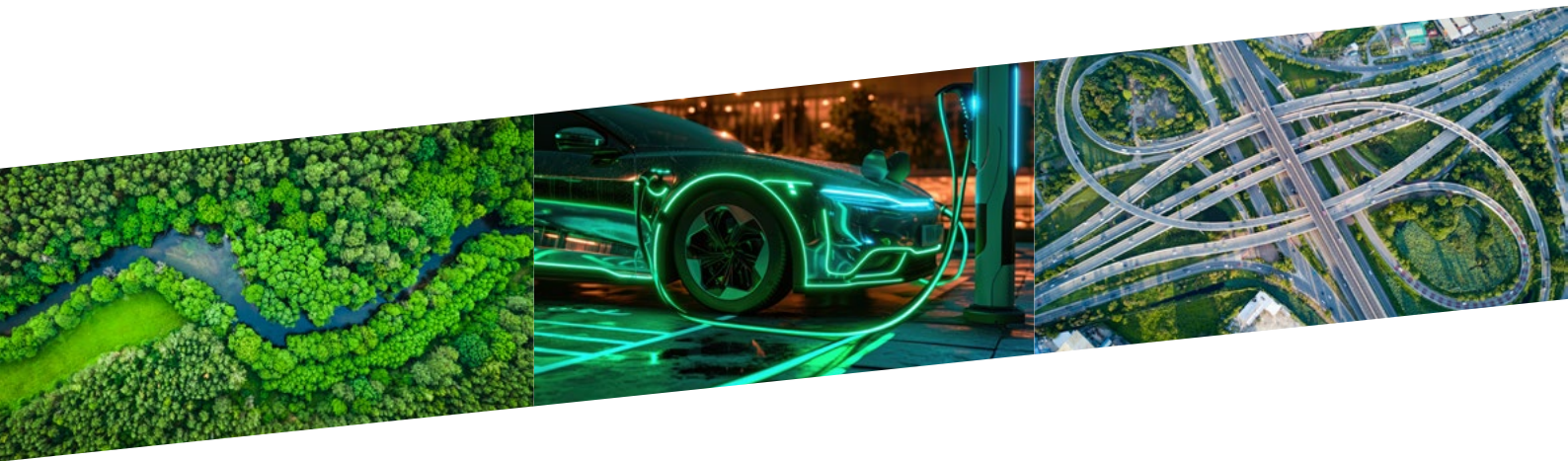
## Empowering Mobility

The surge in vehicle electrification to curb emissions has seen rapid growth in recent years, underscoring the crucial role of a robust electric charging infrastructure for the long-term viability and convenience of electric vehicles (EVs).

Today, the proliferation of charging stations, spanning from residential setups to commercial hubs, offering varying charging speeds from standard to ultra-fast, emphasizes the importance of deploying EV charging infrastructure. This deployment hinges on reducing manufacturing costs while enhancing the reliability and durability of the equipment.

Addressing this challenge, Axalta Coating Systems provides a global array of high-quality coatings across multiple technologies, catering to the diverse requirements of EV charging infrastructure. These coatings safeguard high-value electronics, even in unpredictable outdoor environments, while also providing aesthetically pleasing solutions.

Particularly for indoor charging stations, aesthetics play a significant role. Axalta's coatings can be tailored to match the color schemes of indoor environments, ensuring harmony with other fixtures and decor, which enhances the visual appeal of the installation areas.



Electric vehicle (EV) charging infrastructures typically fall into two main categories: AC Chargers and DC Chargers. AC Chargers are commonly used for individual purposes, featuring plastic exteriors, and typically installed indoors.

On the other hand, DC Chargers are larger in size, constructed with metal frameworks, and are designed to accommodate multiple users in outdoor settings. Both types of chargers require protective coatings with distinct characteristics, all of which can be provided by Axalta Coating Systems.

To determine a suitable coating for both the interior and exterior of EV charging infrastructure, it's important to assess the following criteria, considering factors like:

- Installation location
- Frequency of usage
- Surrounding environment

### **Durability**

- Corrosion resistance
- Shock & impact resistance
- Scratch & abrasion resistance
- Chemical resistance
- Dielectric strength
- Fire retardancy

### **Appealing aesthetics**

- Color design
- Large color choice
- Variety of surface finishes
- Color & gloss retention
- Easy graffiti removal

### **Reliable application**

- Easy to use
- All substrates possible
- Repair possibilities

### **Cost effectiveness**

- Adapted application method
- Minimum layer requirement
- Low bake conditions
- Minimal surface treatment needed

# Powder Coatings for Metal Structures

Tailored coating solutions for enhanced protection and aesthetic appeal



**For the coating of metal exterior structures, Axalta Coating Systems offers a range of technologies or combinations tailored to the environmental demands of EV charging infrastructure installations.**

Both our thermosetting and thermoplastic powder technologies provide a single-layer coating with thickness ranging from 70µm to 250µm, offering protection levels from C3 to C5 (ISO 12944) while maintaining high aesthetic standards (Qualicoat class 1 and 2).

Improved durability, tailored to the level of exposure, can be achieved through a dual-layer system utilizing primers from our thermoset range such as Alesta® ZeroZinc, our thermoplastic range like Plascoat® PPA742, or even our cathodic electrodeposition coating with AquaEC™. Our experts are available to advise you on the most suitable options for your specific challenges.

## Single layer systems

### Alesta® AP Architectural Polyester

Standard durable polyester resin designed for outdoor applications in C3 environments, adhere to the standards of both AAMA 2603 and Qualicoat Class 1, ensuring:

- Weather resistance
- Film integrity
- Color retention

These coatings are also available with specialized antigrffiti properties.

### Alesta® SD SuperDurable Architectural

Superdurable polyester resin designed for outdoor applications, particularly suited for high-end residential and commercial projects, adhere to the standards of both AAMA 2604 and Qualicoat Class 2, ensuring:

- Weather resistance
- Film integrity
- Superior color retention

### Alesta® Cool

Our long-lasting coatings with heat-reflective properties are offered in both Alesta® AP and Alesta® SD technologies. The specially formulated pigmentation significantly enhances infrared reflection, reducing surface temperatures by up to 20% and thereby extending the lifespan of the coated structure.

### Plascoat® PPA571

Utilizing engineered thermoplastic resins, these coatings are ideal for urban or coastal environments and are certified to ISO 12944-6 – C5 High standards. They offer excellent resistance to impact, sand, and abrasion, along with exceptional performance in sub-zero temperatures. Additionally, they can be repaired on-site and provide a grippable surface with a warm-to-the-touch feel.





## Primers for a double layer system

### Alesta® ZeroZinc primer

Our comprehensive range of Alesta® ZeroZinc Primers ensures compatibility with any substrate, offering solutions without Zinc and VOCs. They offer perfect compatibility with all Alesta® topcoats and provide endless design possibilities. Tested according to ISO 12944-6 standard, they offer protection up to C5 level.

### Plascoat® PPA742

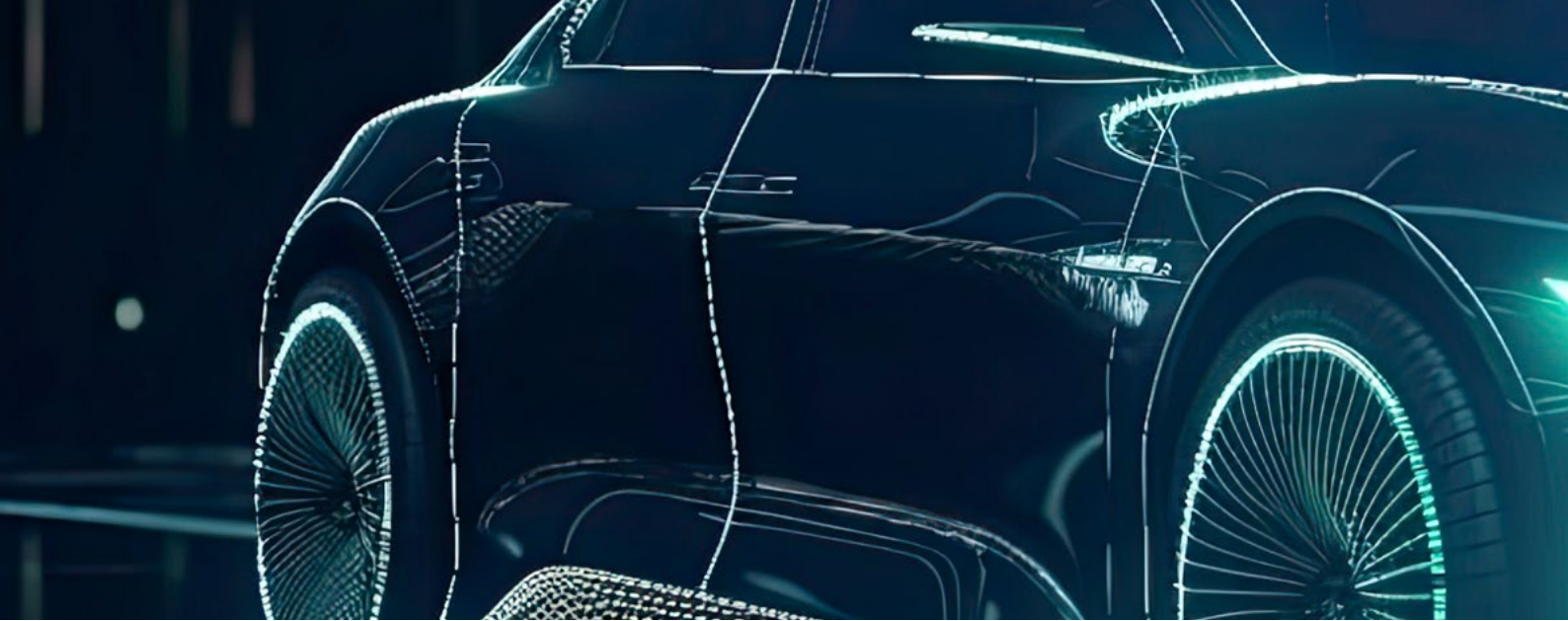
This primer offers superb intercoat adhesion with Alesta® topcoats, enabling effortless customization of designs. This two-layer system provides C5 VH corrosion protection. Improved robustness simplifies the processing of parts with significant differences in thermal mass.

### AquaEC™ 3500 EP / 6100

This new generation of Cathodic Electrocoat, provides a major step forward in edge corrosion protection. It is tin-free, free from toxic heavy metals, and operates at low curing temperatures.

## Product selector

	Single Layer	Single or Double layer		
	Plascoat® PPA 571	Alesta® AP	Alesta® AP Antigraffiti	Alesta® SD
<b>Appearance</b>	Medium	Excellent	Good	Excellent
<b>Aesthetics</b>				
<b>Color Selection</b>	***	*****	**	*****
<b>Finishes available</b>	**	*****	**	*****
<b>UV Resistance</b>	****	****	****	*****
<b>Graffiti Resistance</b>	*****	**	****	**
<b>Corrosion Resistance</b>				
<b>1-layer system</b>	*****	***	***	***
<b>2-layer system with Alesta® ZeroZinc primer</b>		****	****	****
<b>2-layer system with Plascoat® PPA742 primer</b>		*****	*****	*****
<b>Performance</b>				
<b>Chemical Resistance</b>	*****	***	***	***
<b>Shock, impact &amp; abrasion resistance</b>	*****	***	***	***
<b>Scratch resistance</b>	***	*****	*****	*****
<b>Mechanical performance &lt;0°C</b>	*****	***	***	***



# Liquid Coatings for Plastic and Metal Structures

## Topcoats

### PercoTop® 9675

Our comprehensive array of solvent-based products encompasses all layers within the coating system, offering various technologies and performance characteristics for each layer.

### Imron® Industrial Ultra

Our intermix color technology offers advanced adhesion and allows for in-field color shading. With custom colors and variable gloss options, including high gloss polyurethane and reduced gloss polyurethane, ensuring long-term color and gloss retention.

## Primer for a double layer system

### PercoTop® 2K HS Primer 040

Developed to address the most demanding environment requirements, this is a fast drying primer that can also be used as a primer surfacer. Available in different colors.

### Corlar® 2.1 PR-P EP primer

Our high solid, two-component, high build primer adheres to VOC regulations and Low HAPS standards. Utilizing Axalta modified polyamide epoxy technology, it ensures durability with rapid drying and provides outstanding corrosion and chemical resistance.

### Imron® Industrial High Performance Urethane 2.8 PR

Our urethane primer offers fast cure capabilities with long term corrosion protection, improved system DOI and can be used with a common activator.







# Interior Coating

## **AquaEC™ 3500 EP / 6100**

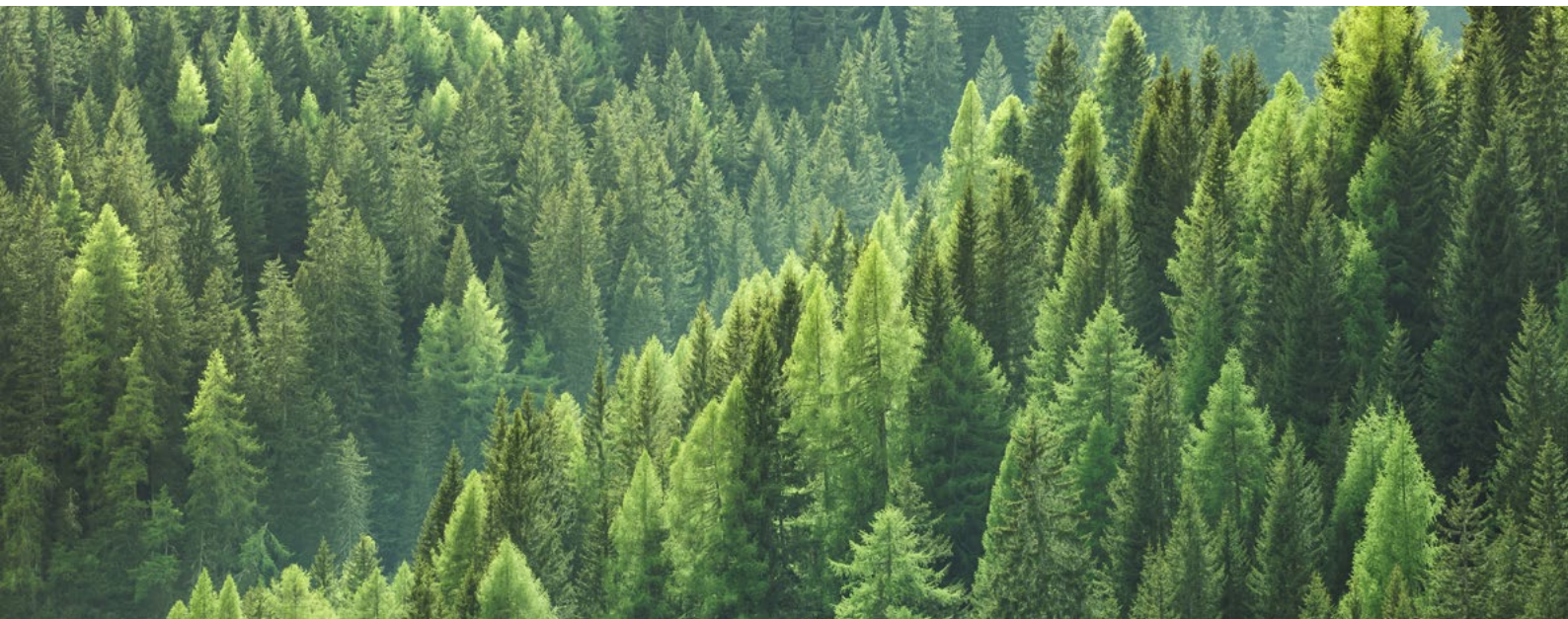
This new generation of Cathodic Electrocoat, provides a major step forward in edge corrosion protection. It is tin-free, free from toxic heavy metals, and operates at low curing temperatures.

## **Alesta® E**

Alesta® E is a powder coating with very good anti-corrosion properties, good flexibility and mechanical resistance. The excellent chemical and mechanical properties make the Alesta® E range particularly appropriate for anti-corrosion, electrical insulation and indoor decorative protection. However, because of their low UV-resistance, Alesta® E powder coatings are not suitable for applications subject to direct sunlight or artificial UV light.

## **Plascoat® PPA571 FR**

Coatings with fire properties that impede fire spread are vital in various daily environments like homes, workplaces, and vehicles. Avoiding halogen constituents in construction materials also lessens environmental impact. Axalta's Plascoat® PPA571 FR (Flame-Retardant) range, built on innovation and expertise, offers halogen-free fire properties, preserving environmental benefits.





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