

# How to specify powder coatings

For metallic substrates in architecture & industrial design





Colours and effects have become one of the most important industrial design elements and are part of the architectural understanding. They give identity, add significance, express quality and maintain value.

Axalta has for many years been at the leading edge of developing coatings that are designed to succeed with our commitment to quality, technology, and innovation.



## Your World our Coatings

Axalta Coating Systems provides customers around the world with durable coatings designed to protect, add colour and increase productivity. Celebrating 150 years of experience in the coatings industry and more than 50 years in powder coatings.

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# The difference between powder coatings and liquid paint

Liquid paint contains solvent and powder coating doesn't.

○  
**Volatile > 50%**  
Solvent

**Non-Volatile < 50%**  
Resin  
Additive  
Pigment  
Extender



Liquid coating



**Non-Volatile = 100%**  
Resin  
Additive  
Pigment  
Extender

# Sustainability

## Powder coating, the sustainable paint solution



**Powder coating is the most sustainable paint solution that the 21st century has to offer. No use of water, the air is the carrier of the powder paint to the metallic substrate through electrostatic guns. They can be easily and ecologically applied to achieve uniform and durable finishes.**

### **Sustainability**

Sustainability is central to Axalta's business. From the coating of articles with our products to make them last longer, to reducing the environmental footprint of our operations, to working safely and with the highest level of ethics and integrity in everything we do, Axalta is committed to strong environmental, social, and governance

practices. To learn more about Axalta's sustainability initiatives, goals, and performance, please see our latest Sustainability Report at [sustainability.axalta.com](https://sustainability.axalta.com)

Powder coatings are environmentally responsible compared to solvent-borne coatings since powder coatings contain no solvents and release negligible amounts of VOCs into the atmosphere. Cured coatings are not expected to release significant quantities of VOC in their service life and cured powder coatings have negligible impact on indoor air quality.

Powder coatings may contribute towards LEED (Leadership in Energy and Environmental Design) credits.

At present Alesta® SD Architectural products, which are placed on the market within the European Economic Area, do not contain any Substances of Very High Concern (SVHC) which are included in the 'Candidate List', available on the ECHA (European Chemical Agency) webpage, in an individual concentration of 0.1 weight % or more. At present Alesta SD Architectural

products do not carry any environmental hazard or health hazard pictograms. The powder coating materials, which are placed on the market within the European Economic Area (EEA), do not contain Lead (Pb), Hexavalent Chromium (CrVI), Cadmium (Cd) or Mercury (Hg) as intentionally added compounds. Nevertheless, these substances could occur as trace impurities in raw materials which are used in the manufacture of the products. The waste from powder coating is significantly less hazardous than waste from solvent-borne coatings.

# The different product families

Range	Product name	Chemistry	Application area	Quality label
<b>Architectural</b>	Polyester Architectural	Alesta® AP	outdoor & indoor	Qualicoat Class 1 GSB Florida 1 (Standard) AAMA2603
<b>Architectural</b>	Superdurable Architectural	Alesta® SD	outdoor & indoor	Qualicoat Class 2 GSB Florida 3 (Master) AAMA2604
<b>Industrial</b>	Epoxy Polyester Industrial	Alesta® EP	Indoor furniture & appliances	
	Polyester Industrial	Alesta® IP	Industrial outdoor & indoor applications, ACE, garden furniture, fences.	
<b>Special Functionality</b>	Antigraffiti Outdoor	Alesta® AP AntiGraffiti	Architectural outdoor & urban furniture	Qualicoat Class 1 GSB Florida 1 (Standard) AAMA2603
	Fast cure	Alesta® SF	Coil coating for outdoor architectural and industrial applications	
	Cool	Alesta® Cool™	Low absorption of IR required, f.e. urban furniture, façade elements, doors, etc.	Qualicoat Class 1 & 2 GSB Florida 1 & 3 Standard & Master AAMA 2603 & 2604
<b>Corrosion Protection</b>	Polyester Architectural	Alesta® AP QualiSteel	Steel construction applications, garden furniture, fencing	Qualisteelcoat
	Anticorrosive primer	Alesta® ZeroZinc	Steel construction applications, automotive, outdoor furniture	Qualisteelcoat
	Thermoplastic	Abcite®	Offshore, Exterior application, outdoor furniture, railings and stairways, fencing	
	Thermoplastic	Plascoat® PPA571	Exterior applications including outdoor furniture, light poles, playground equipment, railing and stairways, fencing	

## QUALICOAT Quality Label

The QUALICOAT quality label is a product certification scheme. The bases of the QUALICOAT building are the Specifications for a quality Label for liquid and powder organic coatings on aluminium for architectural applications.

## GSB International

The task of GSB International is to ensure quality in relation to coatings of workpieces as well as pre-treatment and coating materials used in the process. To this end, GSB creates quality guidelines and monitors their application, which we document by awarding our quality seals.

GSB International continuously adapts these quality guidelines to the latest technology and market requirements. People and the environment are at the centre of their efforts.

## AAMA Certification

The AAMA Certification Label tells customers that a sample of the product has been verified as conforming to the standards' requirements through independent laboratory testing and follow-up on-site inspection of the manufacturer's production line. Products authorized for certification and their manufacturers are also listed in the online AAMA Certified Products Directory (CPD), the industry's preeminent resource for window and door products.



For more information on our product families visit [www.axalta.co.uk/product-catalogue](http://www.axalta.co.uk/product-catalogue)



Tour de la Marseillaise, France, Ateliers Jean Nouvel, Photography Michele Clavell

At Axalta we have got more than 1200 colours, effects and finishes available from stock. We offer these powder coatings in the premium qualities, mainly in Alesta® AP and Alesta® SD for the architectural and industrial design market.

We have the most extensive RAL based colour offering in the business which are available in different gloss grades and finishes:

- Fine Textured 5%
- Mat 30%
- Semi-gloss 70%
- Gloss 80%

Axalta is constantly expanding its products offering to respond to demands in the market and future trends. Since the demand for very super durable products is increasing, consequently we adapt and develop more products in the Alesta® SD range.

Axalta is a trend setter and produces colours that make it possible for you to add character to your project. In collaboration with colour trends agencies and together with the knowledge of their colour experts we are proposing colour collections dedicated to the architecture, design and industrial segments.

Each colour collection has got its own story and dedicated advantages.



## Standard & premium quality for outdoor projects

### **Alesta® AP** **Architectural Polyester**

A range of standard durability powder coatings based on polyester resins featuring high quality exterior grade pigments, certified by Qualicoat Class I, GSB Florida 1 (Standard) and AAMA 2603 and is supported by a warranty.

Field of application: Outdoor architectural substrates, aluminum profiles and sheets. Steel or galvanized steel for cladding; verandas, doors, window frames, furniture for outdoors. Can also be used for the protection and decoration indoors.

### **Alesta® SD** **SuperDurable Polyester**

A range of super durable powder coatings based on high performance polyester resins featuring exterior grade pigments of the highest quality. Alesta® SD is a premium weather- and UV resistant coating for the sunniest environments, Qualicoat Class II, GSB Florida 3 (Master) and AAMA 2604 and is supported by a warranty of up to 25 years.

Field of application: aluminum curtain walls for prestigious buildings. Doors, window frames, cladding and other parts in architecture and construction; Buildings in severe environments. Urban furniture, shopping fittings, garden furniture, lighting and other general industrial applications where the gloss retention and colour fastness are very important.



### **Warranties**

Our ranges AP and SD are supported by warranties. The warranties are valid when the product is applied by an Axalta approved applicator and under the Axalta prescribed conditions. In order to determine the years of warranty the project to be coated needs to be evaluated before starting it. The warranty will be signed with the approved applicator.



# Our product families in detail



## Protective solutions, stop corrosion

**Corrosion leads to high repair and maintenance costs. Surface pre-treatment and use of the most appropriate anti-corrosion systems will extend the life of painted structures.**

Axalta Powder Coatings offers a wide range of special products for corrosion protection depending on the type of substrate, required performance and the final application:



### **Alesta® AP QualiSteel**

In a more and more demanding market, there is an increasing need for a better protection of galvanized and zinc thermal sprayed steel. By using Alesta® AP QualiSteel, you increase not only the durability and protection of most steel structures, you also coat it in a wide range of colours.

When it comes to sustainability, Alesta® AP QualiSteel is an excellent choice. It enables you not only to save energy or material, it is also label free, and offers any steel structure a much longer life span thanks to the coating excellent UV stability.

Alesta® AP QualiSteel is part of QUALISTEELCOAT coating system.

### **Alesta® ZeroZinc**

Corrosion of steel leads to high repair and maintenance costs. Surface pre-treatment and use of the most appropriate anti-corrosion system will extend the life of the painted structure. After more than 10 years of research and development, the Alesta ZeroZinc range of products is expanding to provide the best solution for every substrate.

### **Abcite®**

is a range of thermoplastic powder coatings providing outstanding anticorrosion properties in hazardous environments combined with excellent toughness and chip resistance. No primer or undercoat is necessary and it is suitable for a wide range of exterior applications including outdoor furniture, railings and stairways, fencing panels and more.

Please consult your Axalta Colour Expert for more information on specifications.

# Our product families in detail

## Indoor & industrial projects

### **Alesta® EP** **Epoxy Polyester**

Alesta® EP is a powder coating specifically formulated for industrial indoor applications. It is designed for use in different applications but not on substrates exposed outdoors. This epoxy-polyester range offers very good corrosion protection and high mechanical properties and with limited UV-resistance.

### **Alesta® IP** **Industrial Polyester**

Alesta® IP is a range of powder coatings for outdoor industrial applications. It has good weather resistance, very good flexibility and mechanical properties for excellent outdoor durability.

It is typically used to decorate and protect industrial metal pieces outdoors and indoors.

Alesta® IP has excellent reactivity and very good flow. Together with excellent transfer efficiency and a broader curing schedule, Alesta® IP boosts productivity and cost efficiency.







## Innovative technologies

### **Alesta® AP AntiGraffiti Outdoor No go for graffiti**

By using Alesta® AntiGraffiti powder coatings, spray-painting vandalism can be eliminated. It is easy to clean and protects against the permanent effects of spray paints and marker pens. It has exterior durability, good chemical resistance, very good weathering properties and outstanding film hardness. Alesta® AntiGraffiti is formulated in high gloss with GSB and Qualicoat certifications.

It has also been tested and approved by the Dr. Kupfer laboratory. This includes the evaluation of procedures, technologies and materials for graffiti removal and prevention according to the "German Gütegemeinschaft Anti-Graffiti e.V." quality association and LABKUPFER® test method.

For more information on Alesta® AntiGraffiti visit [www.axalta.co.uk/alesta-ag](http://www.axalta.co.uk/alesta-ag)

### **Alesta® COOL™ Black as cool as white**

Solar warming of metal substrates is a matter of reflection. Approximately 50 % of solar energy reaching the Earth's surface consists of infrared light which makes a significant contribution to warming. When buildings and objects undergo warming from solar energy, it is all about radiation and reflection. The invisible infrared radiation contributes significantly to the warming of the object.

POLAR is a collection of fine textured powder coatings with COOL™ properties in Alesta® SD quality. The products decrease these fluctuations of temperature. In addition, the products contribute to the sustainability of a project. Metal parts coated with this range of innovative colours will undergo limited thermal stress and this increases the lifetime of a structure.



The Alesta® COOL™ properties can be added to both the standard architectural polyester or the super durable quality. In POLAR, a collection of 6 exclusive trendy hues, we extended our Alesta® SuperDurable quality with COOL™ properties and a fine textured finish.

For more information on Alesta® COOL™ visit [www.axalta.co.uk/alesta-cool](http://www.axalta.co.uk/alesta-cool)

More information on POLAR can be found at [www.axalta.co.uk/polar](http://www.axalta.co.uk/polar)

# Our product families in detail

## Innovative solutions

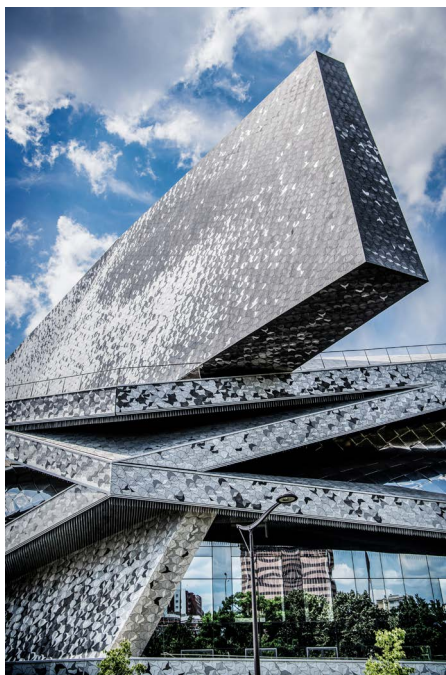
### **Alesta® SPEED**

#### **Fast solution for the architectural market.**

Axalta powder coatings have evolved to meet the high flexibility requirements of the coil coating industry in pre-coating and post-forming. Coil coated products are used for composite panels and other external building materials.

These colours are mainly tailor-made products but to be carefully considered when sheets need to be assembled with profiles on cladding.

The Alesta® Speed thermosetting coatings provide protection and decorative finishes for metal substrates. Durability, weather resistance and colour choice make them attractive for the construction and architectural market. Chemically resistant powders are also available in the Alesta® Speed range and can be formulated to customer requirements.



### **Abcite® and Plascoat® Thermoplastic solutions**

are ranges of functional thermoplastic powder coatings providing excellent, lasting corrosion protection and weathering resistance combined with excellent toughness and chip resistance. No primer or undercoat is necessary and thanks to their thermoplastic nature they offer special properties such as specific soft touch, noise dampening, impact resistance and graffiti resistant. All these features make them the coating of choice for various applications in variety of aggressive environments and exterior applications including outdoor furniture, light poles, playground equipment, railing and stairways, fencing panels and more.

Please consult your Axalta Colour Expert for more information on specifications.

# How to specify a powder coating

Specifying a powder coating is an important task, several parameters must be considered, contact your local colour expert or sales engineer for support.

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## Aluminium

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**Corrosion protection** based on the location select the right pretreatment ( discuss with the applicator )  
If additional protection is required a primer should be considered, consult Axalta colour expert

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**Quality** select the right quality based on the requirements ( type of building & environment; see table in the next page)

Alesta® AP , certified as Qualicoat class 1 and GSB Florida 1 warranty on colour and gloss retention up to 15 years  
Alesta® SD, certified as Qualicoat class 2 and GSB Florida 3, warranty on colour and gloss retention up to 25 years

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**Colour & effect** Select the colour and finish from our offer , RAL based colors in different finishes and special collections, for specific colours, please contact us

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## Steel

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**Corrosion protection** Please refer to ISO 12944-2018

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3 aspects to be considered

**1. Identify the environment:**

Select the environment where your product will be used

A / For steel and galvanised steel, the ISO 12944-2 standard defines 5 corrosive levels (C2- CX)

**2. Identify lifetime:**

Select the needed lifetime. The lifetime cycles are split into 4 durability levels using time frame of 7-years , 15-years , 25-years and higher; low, Medium , high and very high

**3. Identify the substrate:**

The identification of the substrate to be coated depends on its nature, design and often both:

- Ferrous substrates (steel with low carbon content, alloyed steel, wrought iron...)
- Substrates prone to outgassing (castings, galvanised steel, metallised steel)
- Parts with sharp edges

based on the 3 points above select the right system ( pretreatment + coating), follow recommendations in our corrosion protection literature and /or consult the colour expert in your country

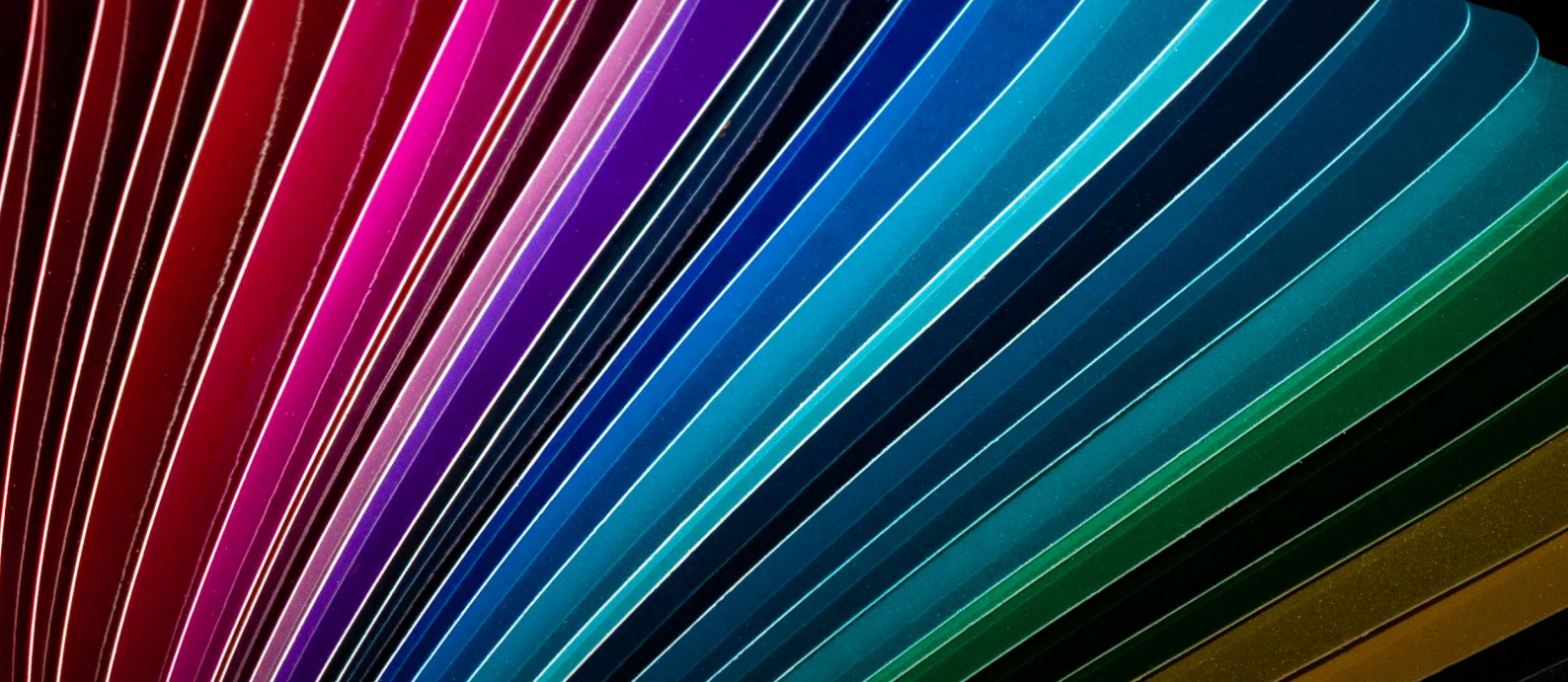
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**Quality** select the right quality based on the requirements ( type of building & environment; see table in the next page)

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**Colour & effect** Select the colour and finish from our offer, RAL based colours in different finishes and special collections, in case special colours are required , please contact us .

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	<b>Indoor (3)</b>	<b>Normal Urban &amp; rural</b>	<b>Severe Marine &amp; industrial</b>	<b>Extreme Offshore</b>
<b>Aluminium (1)</b>	Alesta® AP Alesta® EP Alesta® IP	Alesta® AP Alesta® SD (High durability)	QP Primer + Alesta® SD	-
<b>Steel (2)</b>	Alesta® AP Alesta® EP Alesta® IP	ZF Primer + Alesta® AP ZF Primer + Alesta® SD Plascoat® PPA571	ZF Primer + Alesta® SD Plascoat® PPA571 Abcite®	Abcite®
<b>Severe</b>	-	ZF Primer + Alesta® AP (Qualisteel) ZF Primer + Alesta® SD Plascoat® PPA571	ZF Primer + Alesta® SD Plascoat® PPA571 Abcite®	Abcite®

1. Follow the QUALICOAT and GSB recommendations

2. Follow ISO 12944 2018

Definition of the system to be applied pre-treatment + primer + finish

Depending on the type of steel used and environment, different types of pre-treatment are

required, for more info find our anticorrosion brochure on our web page ([www.axalta.co.uk/anticorrosion](http://www.axalta.co.uk/anticorrosion))

3. For specific functional requirements consult our experts

#### **Recommendations**

- Consider and attach to the specification sheet, the procedure for maintenance and cleaning of painted surfaces
- Indicate name of the selected supplier and the unique product code of the product if possible.
- Go to certified job coaters according to the quality standards that apply
- In case a warranty is required go to an approved applicator by Axalta.



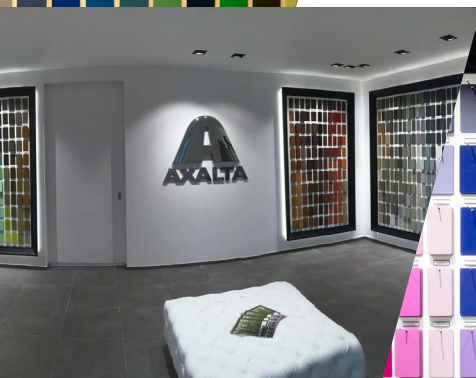
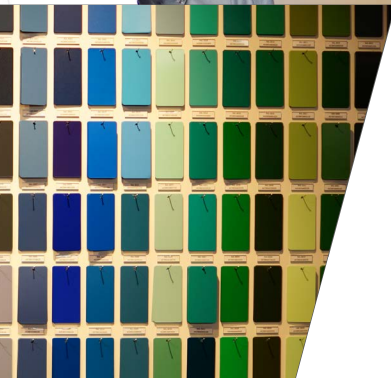
## We make selecting colour & quality for your project easy in our Colour Experience Rooms

Our Colour Experience Rooms are home to the wide and versatile powder coatings offering of Axalta. An exciting and colourful environment to let your imagination go wild. Get inspired to the fullest and let your metal substrate designs stand out. We have a solution for every creative and architectural project. Visit one of our locations in Europe and let your personal Axalta Colour Expert guide you through our world of colour!

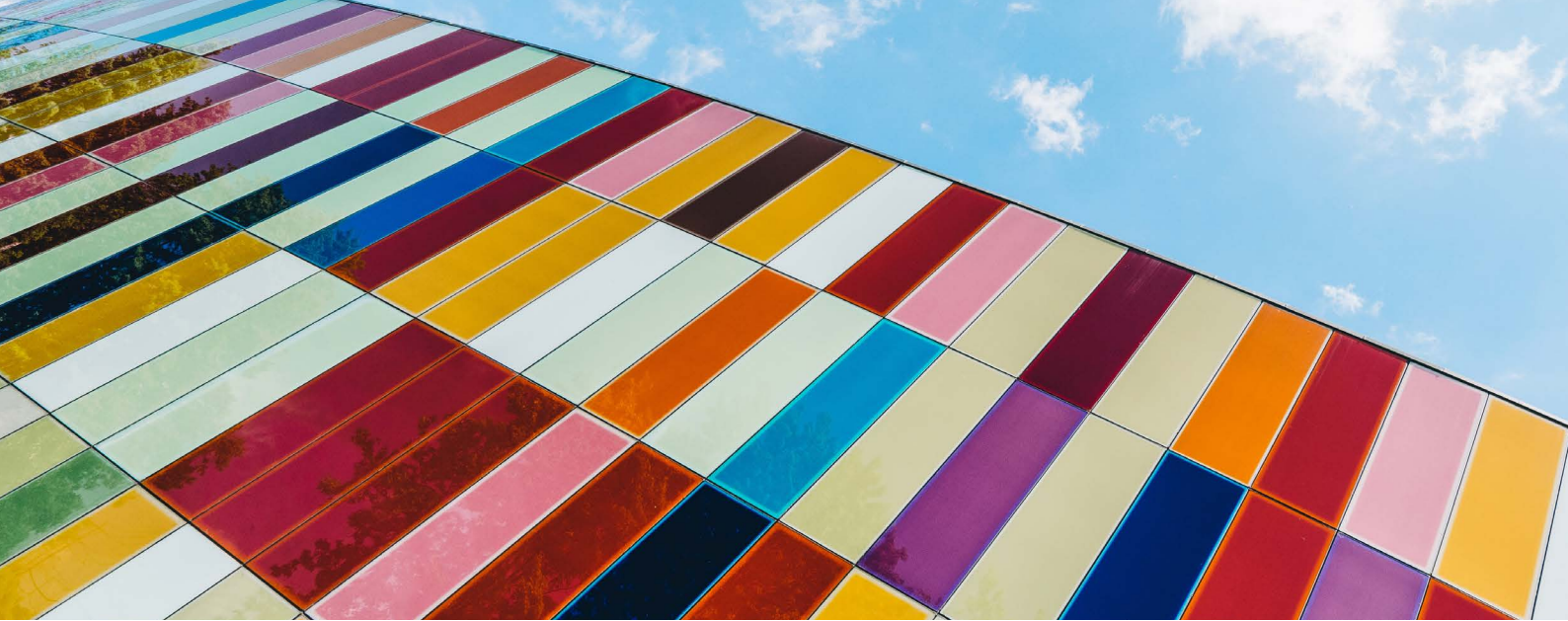




COLOUR  
EXPERIENCE  
ROOM  
by Axalta



**Book your visit and read more**  
[www.axalta.co.uk/cerlondon](http://www.axalta.co.uk/cerlondon)



## Mock-ups

### A4 sample panel service

Once you have received your sample panels via COLOURit, you are then able to write your specification for your project with the exact product code mentioned on the label.

For additional purposes you might need to have an A4 panel, powder coated with the colour of your choice.

In that case, Axalta can provide you with this service. Simply get in touch with your dedicated contact.

### Mock-ups and prototypes

With over 1200 colour available from stock to choose from, you will be curious how your selected colour will look on your design?

To help you in this creative process, we offer the possibility to powder coat mock-ups. You can do this either in our technical facilities for smaller items or we get in touch with your coater and supply a small quantity of powder coating to coat a prototype.

Seeing your prototype or mock-up in the right colour will enable you to make the right creative decision.



# Colour and services

## Sample panel services

### **COLOURit. sample panel service**

The team at Axalta Coating Systems have developed a digital tool that simplifies the colour selection process in architecture and industrial design through a virtual surface coating. The entire spectrum of colours, in various gloss levels and textures, can be visualised. The application also shows a large number of Axalta developed colour shades and effects, many of which have been developed in conjunction with architects and designers. The colour range available in the tool is regularly expanded and updated by our colour experts. To ensure that colour shades, gloss levels and textures are also convincing in reality, we have integrated an innovative colour sample service, which enables you to receive your selected colour samples completely free by mail on request.



Make a colour selection for your next project now!  
[www.axaltacolourit.com](http://www.axaltacolourit.com)

### **ColourSelector**

Visit one of the Axalta ColourSelectors, installed in various locations in Europe, and let our partners guide you in making the best choice for your vision and ideas.

The ColourSelector displays coated sample panels of our 490 most popular colours in Alesta® AP, Architectural Polyester and Alesta® SD, SuperDurable quality; not only do you get the opportunity to see these colours in real life, but also to feel the structure of the different finishes and order samples.



Find a ColourSelector partner near you  
[www.axalta.co.uk/colourselector](http://www.axalta.co.uk/colourselector)



## Trends

### vibes trend report

Did you know 85% of what consumers buy is based on colour? Our colour experts are continuously looking for the latest trends in colour, effects and finishes and it's their desire to inspire. We understand design is highly influenced by prevailing trends!

Vibes is a trend guide offering a combination of colour, effect and texture to give any design the right 'vibe' and contains the upcoming trends in architecture and design, in terms of colour, texture and shape.

Read about colour sociology and psychology with interesting articles by our colours experts or discover the stories behind the projects by architects and designers.

Visit [www.axalta.co.uk/vibes](http://www.axalta.co.uk/vibes) to read more.



Lafuma Mobilier, France | Simer, Spain | Todus, Studio Segers, Belgium | Blästasjon, Sweden | Bujnie, Poland  
Danzigerkafe 125, The Netherlands, MVSA Architects, Photography Bart van Hoek

# We are all about colours

## Collections

### Colour Collections

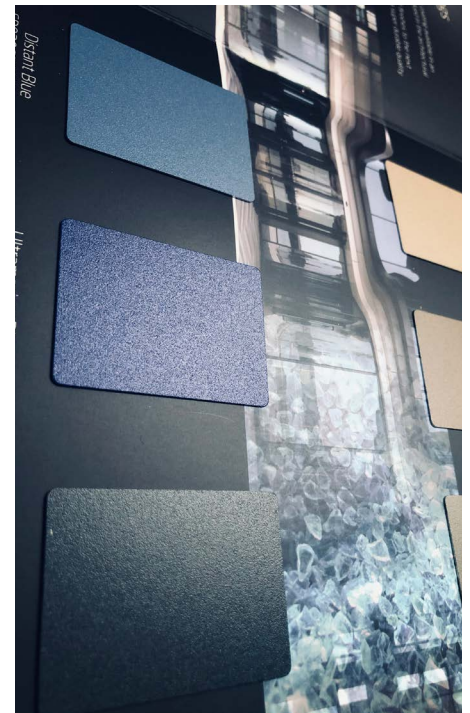
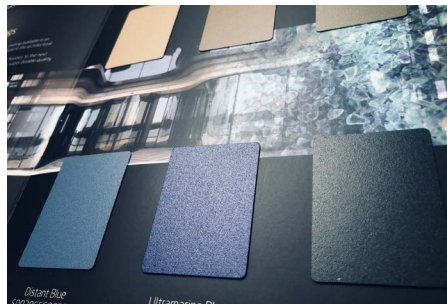
Axalta Powder Coatings are designed to provide tough, long-lasting and beautiful finishes. Available in a wide selection of colours, effects and finishes, we feature a broad range of more than 1200 stock products.

Discover our colour collections with distinctive finishes like fine textured, smooth in matt or semi-gloss. Or ranges with very specific technical properties and features, in popular hues. Each of our collections has a very distinguishing character, a perfect match for contemporary architecture.

And, if we don't have the right colour you have in mind, we develop it!

Visit [www.axalta.co.uk/powder](http://www.axalta.co.uk/powder) to browse our range and collections.

Feel free to download or order yours immediately!



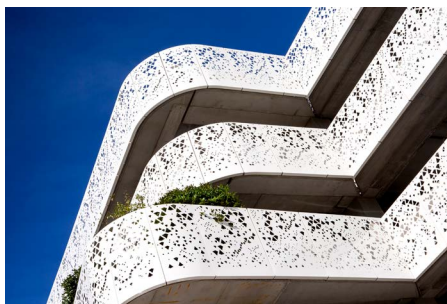
# Showcase

## References

### Our colours prescribed

You as a creative have made your choice, ordered sample panels, but you want to confirm your choice looking at references of projects where Axalta powder coatings were applied? Just visit our website to discover our colourful references from all over Europe.

Visit [www.axalta.co.uk/references](http://www.axalta.co.uk/references) to discover more references.





BD Arcadia Design, Spain | Bares, Belgium | Danzigerkaade 125, The Netherlands |  
MUSA Architects, Photography Bart van der Spek | Jasper-Eyers & Paltreiers, Courtesy of  
Beddeleem | Voka Ghent, Belgium, Jacques Vansteke and Philip Dewit, from Meubumai/  
MV2, Photography Ivan Dupont



[WWW.POWDER.AXALTACS.COM](http://WWW.POWDER.AXALTACS.COM)

Further information on our product portfolio  
[www.axalta.co.uk/powder](http://www.axalta.co.uk/powder)



Order your sample panels via  
[www.axaltacolourit.com](http://www.axaltacolourit.com)

**For questions please contact  
your local sales office.**

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