IGP POWDER COATINGS

IGP-HWF*smart* 59 Biosource

Super durable low-temperature powder coatings based on mass-balanced resins promote the bioeconomy and enable durable, resource-efficient façade design.



Promote the bioeconomy. Shape a resource-efficient future.

swiss quality

IGP-BIOSOURCE



Durability alone is no longer enough. In architecture, environmental criteria are increasingly gaining importance alongside technical performance. IGP-HWF*smart* 59 Biosource combines super durable façade protection with responsible resource use. Through energy-efficient processes and the use of ISCC PLUS-certified, mass-balanced resins, the system supports the bioeconomy and reduces CO_2 emissions along the entire value chain.[1]

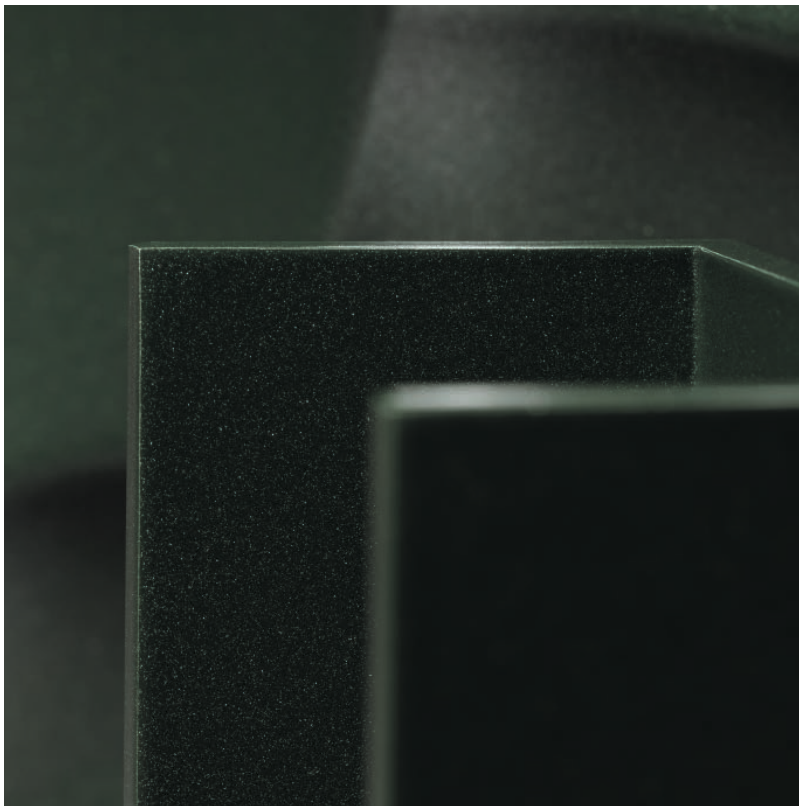
[1] Product carbon footprint analysis (SPHERA)

Your benefits at a glance

+ Process safety through adherence to international quality standards
+ Long-term value retention thanks to high color, gloss, and film stability
+ Energy-efficient processes with measurable CO_2 reduction
+ Reduction in embodied carbon through the use of alternative, bio-based raw materials via the massbalance approach
+ ISCC PLUS Certification for transparent supply chains

An industry in transition.

The construction sector is one of the biggest drivers of global CO_2 emissions: Around 37 % of energy-related emissions are attributable to buildings. The choice of materials and design principles are crucial in determining a building's climate footprint.



The construction industry is undergoing a profound transformation process. Regulatory initiatives such as the European Green Deal, carbon pricing, and emissions trading are broadening the focus beyond energy-efficient building operations and increasingly calling for the reduction of "gray emissions" – the "embodied carbon" contained in every material used. In parallel, voluntary sustainability standards such as LEED, BREEAM, or DGNB promote resource-efficient construction methods and require a transparent assessment of the materials used. For architects and façade planners, the choice of materials thus becomes a strategic decision with a measurable impact on a building's overall environmental footprint.

Powder coatings play a key role in this process, combining excellent environmental performance, outstanding resistance, and great aesthetic diversity. The majority of emissions in the powder value chain occur in Scope 3 – that is, through indirect greenhouse gases from the upstream supply chain (raw materials) as well as downstream during application and use.

IGP-HWF*smart* 59 Biosource as the solution
An innovative, highly reactive low-temperature system that combines energy-efficient application with the ISCC PLUS-certified use of mass-balanced bio and bio-cicular raw materials. The result is a significant reduction in CO_2 emissions along the entire powder value chain and an active contribution to the industry's sustainable transformation.

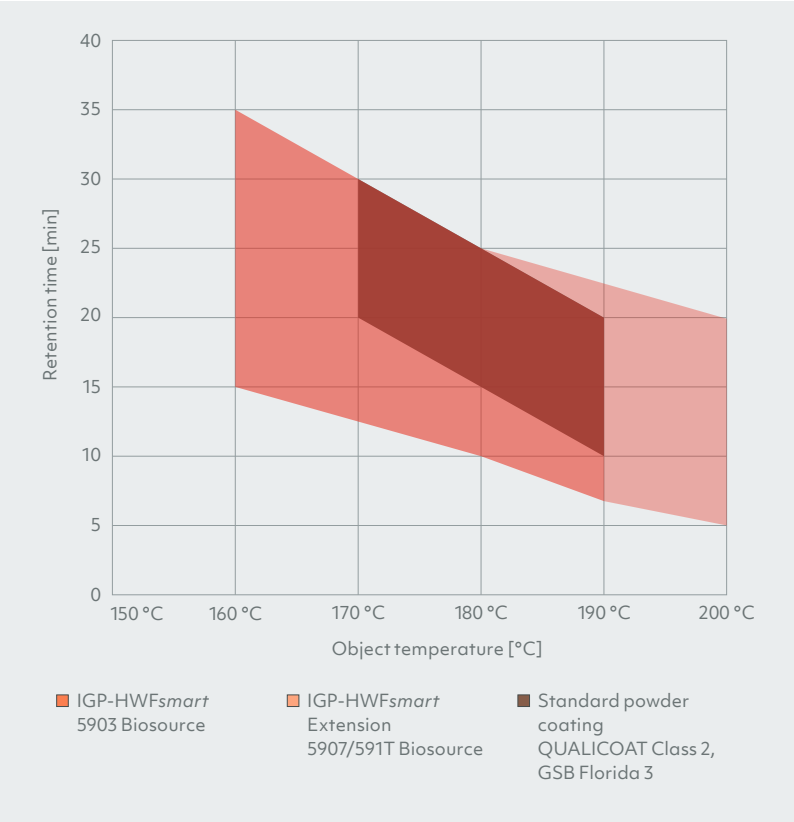
Climate action starts with choosing the right materials.

Lower your curing temperatures. Save energy.

Higher energy efficiency
The curing process is an energy-intensive step in powder coating and has a significant impact on the carbon footprint of the coated component. Lower curing temperatures and shorter retention times directly reduce energy demand and thus process-related emissions.

IGP-HWF*smart* 59 Biosource is a super durable, highly reactive, and quality-certified powder coating series. It enables significantly reduced curing temperatures with low minimum curing conditions (15 min at 160°C) and at the same time impresses with excellent over-curing and gloss stability as well as long-lasting, super durable façade performance.

By reducing oven temperatures, IGP-HWF*smart* 59 Biosource lowers energy consumption in the coating process and thus makes a noticeable contribution to reducing the carbon footprint of the coated component.



Extended curing window of IGP-HWF*smart* 59 Biosource compared to conventional super durable façade powder coatings (QUALICOAT Class 2, GSB Florida 3)

Lower curing temperatures. Reduced energy consumption. Lower costs and a reduced environmental footprint.

Promote the bioeconomy. Reduce fossil carbon.

Sustainability begins with the raw material
Energy-efficient processes significantly reduce CO_2 emissions. However, a holistic assessment of the powder coating value chain shows that raw materials are the largest source of emissions. Effective and sustainable emissions reduction therefore requires measures that are specifically focused on the materials used and their origin.

IGP-HWF*smart* 59 Biosource addresses precisely this challenge. The ISCC PLUS-certified product variant is based on super durable, mass-balanced polyester resin systems, to which more than 90% bio-based and bio-circular raw material sources are attributed using the mass-balance approach. This approach promotes the bioeconomy by replacing fossil-based raw material components throughout the value chain with renewable and bio-circular alternatives. IGP already uses the highest possible certified share of mass-balanced raw materials in its resin systems, thereby assuming a pioneering role within the global powder coatings industry. Compared to the conventional variant, IGP-HWF*smart* 59 Biosource has a demonstrably lower carbon footprint.[1]

Origin of the alternative raw materials
The mass-balanced polyester resins used in IGP-HWF*smart* 59 Biosource are attributed to bio-based and bio-circular rawmaterial sources. Bio-based raw materials come from sustainably grown agricultural feedstocks as well as sustainably managed forestry biomass. Bio-circular raw materials are derived from biogenic residues and waste materials, including used cooking oils, food waste, and other residues of biological origin.

**Replace fossil raw materials.
Promote the bioeconomy.
Shape the future.**



ISCC PLUS certification

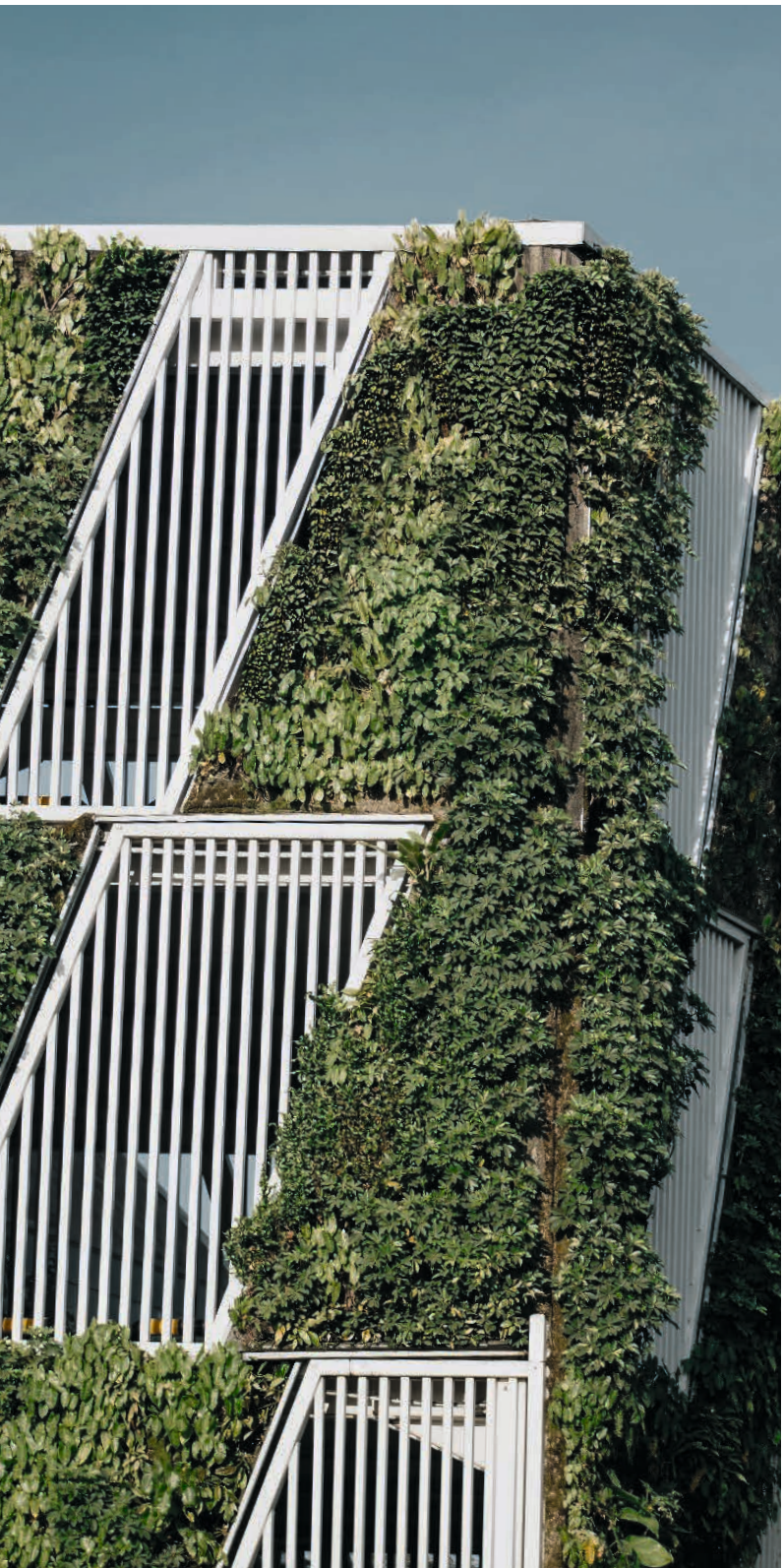
The International Sustainability and Carbon Certification (ISCC) was founded as a multi-stakeholder initiative in 2010. It is a globally recognized, voluntary certification system for sustainable raw materials and supply chains that are transparent and traceable.

Advantages
- Supports the bioeconomy
- Seamless traceability of the raw materials used
- Supply chain transparency
- Protection of biodiversity and areas with high carbon stocks

Certificate Holder ISCC International Sustainability & Carbon Certification

[1] Product carbon footprint analysis (SPHERA)

Sustainable transformation of the value chain.



What is the mass-balance approach?
The mass-balance approach is a recognized method for gradually integrating recycled or renewable raw materials into the value chain while replacing fossil resources. The mass-balanced product offers the same quality and performance as the conventional product, but with a significantly lower carbon footprint.[1]

Although the individual feedstocks cannot be physically distinguished in the end product, the renewable share is allocated to specific products or batches using verified calculation methods. Independent certification schemes, such as ISCC PLUS ensure that the quantity of alternative raw materials used matches the quantity of mass-balanced products sold. This guarantees that every certified product contributes to reducing the use of fossil resources. For maximum transparency and traceability, IGP additionally creates a direct 1:1 link between certified raw materials and the end product.

Green building certifications
DGNB, BREEAM, or LEED assess entire buildings, not individual products. Nevertheless, high-quality façade systems such as IGP-HWF*smart* 59 Biosource make a measurable contribution: mass-balanced products reduce the share of fossil-based raw materials and are documented on a fully traceable basis through ISCC PLUS certification. This makes them a strategic lever for green building labels – not through visible material changes but through verifiable system quality, documented raw material substitution, and environmental impacts that are verified to be lower.

[1] Product carbon footprint analysis (SPHERA)

Super durable and resource-efficient – a material built for the future.

IGP-HWF*smart* 59 Biosource is a super durable façade system for long-lasting color and gloss stability. It meets the requirements of the GSB Florida 3, QUALICOAT Class 2, and AAMA 2604 quality standards. This innovative low-temperature system significantly reduces energy consumption in the curing process without compromising its super durable performance. At the same time, the use of ISCC PLUS-certified mass-balanced resins helps advance the bioeconomy by replacing fossil-based feedstocks with renewable and bio-circular alternatives throughout the value chain.

A coating system that combines technical resistance with environmental responsibility and shows how future-proof architectural materials can be implemented today.

In terms of design, IGP-HWF*smart* 59 Biosource leaves little to be desired. The product is available in a wide range of colors, effects, and surface textures. All common gloss levels are available.



IGP-HWF*smart* 59 Biosource product range at a glance

Product range	Surfaces	Approvals/test reports
IGP-HWF*smart* 5903 Biosource	Smooth, matte	**On aluminum** QUALICOAT Class 2, GSB Florida 3, and AAMA 2604
IGP-HWF*smart* 5907 Biosource	Smooth, silk gloss	**On steel/galvanized steel** Qualisteelcoat ST2/HD2, tested on IGP-*KORROPRIMER* 60
IGP-HWF*smart* 591T Biosource	Fine texture, deep matte	**Fire performance** test report according to EN 13501-1

International quality standards



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to every surface.
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