IGP POWDER COATINGS

Quality levels for high-end architecture

From the initial investment to long-term value retention: why powder coating quality is a strategic decision.





The basis for durability: choosing the right quality level.

Contemporary architecture places the highest demands on façade coatings. Choosing the correct quality level for a powder coating system is crucial in this context. It determines how durable a coating is and how well its color and gloss are preserved over time. Resistance to scratches and mechanical impacts also plays an important role. In addition, the quality level affects cleaning requirements and thus the long-term maintenance costs of the façade.

The advantages of super durable coatings

+ **Long-term value retention**
  Color and gloss stability ensure high visual quality for years.
+ **Reduced cleaning and maintenance effort**
  Lower susceptibility to soiling extends cleaning intervals.
+ **Optimized life cycle costs**
  Reduced maintenance requirements contribute to the lowering of total costs over the long term.
+ **Extended warranty options**
  Higher performance forms the basis for longer warranty periods.

International quality standards as a reliable basis

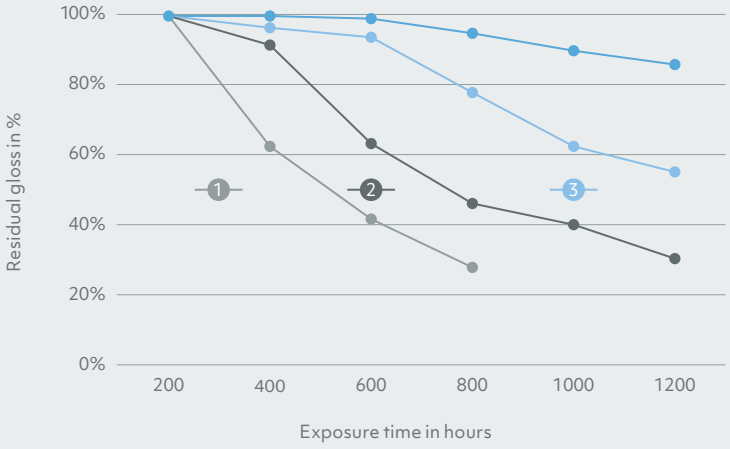
The quality levels of façade coatings are not defined by individual manufacturers. They are based on internationally recognized certification bodies and standards with clearly defined criteria for coating aluminum and steel.

International standards and certifications as a quality benchmark
Organizations such as GSB, QUALICOAT, and AAMA set binding requirements for weathering resistance and long-term durability. A key benchmark in this context is Florida exposure testing, which is regarded as a realistic reference for aging resistance and optical stability. The IGP façade portfolio features solutions for all relevant quality classes (see chart) and is tested and certified accordingly. This provides planning certainty – the selected quality level demonstrably meets defined performance standards.

Systematic warranty program based on quality standards
Upon request, we will provide your coating company with long-term, project-specific warranties for buildings and façades based on our certified IGP quality. The warranty period depends on the quality of the selected product and the building's location.

The warranty is divided into two clearly defined areas of performance: first, the protective function, which ensures the film's long-term integrity and the preservation of its functional properties. The second performance area is the aesthetic function, which is designed to ensure long-term surface color and gloss stability.

Quality grades – QUV-B accelerated weathering test, DIN EN ISO 16474-3



IGP-DURA*one* 56
IGP-HWF*smart* 59
IGP-DURA*xal* 42
IGP-HWF*superior* 57
IGP-DURA*sky* 95

Requirements, accelerated weathering QUV-B	300 h ≥ 50 % (1)	600 h ≥ 50 % (2)	1000 h ≥ 50 % (3)	No accelerated weathering
GSB	Florida 1	Florida 3	Florida 5	Florida 10
QUALICOAT	Class 1	Class 2		Class 3
AAMA	2603	2604*	2604*	2605

*Requirement 1000 h ≥ 30 %

Cost-effective throughout the life cycle

When planning building envelopes, it is not the initial investment alone that determines cost-effectiveness – but rather the consideration of the total life-cycle costs. Choosing the quality level of the façade powder coating influences both the initial façade costs and the long-term expenses for cleaning, maintenance, and value retention.

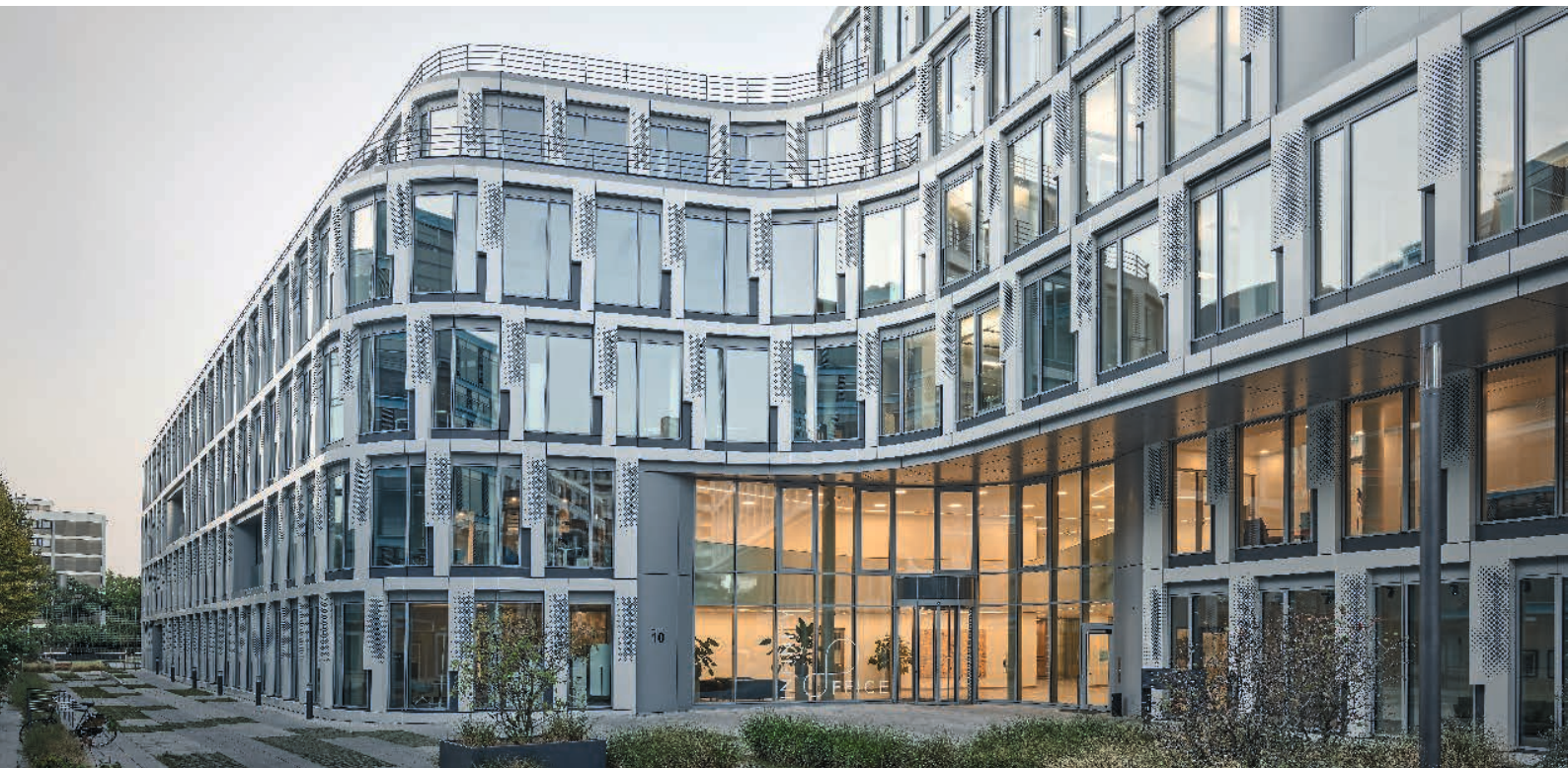
Understanding system costs
The following example compares the system costs of IGP powder coating systems across clearly defined quality and performance categories. This is evident in practice: differences in material costs are hardly significant, because labor, transport, packaging, and overhead costs make up a large share of total costs. Since coatings account for only a small fraction of the total façade costs, even high-quality systems have only a marginal impact on the overall investment per square meter.

Calculation example and fundamentals
In the calculation example, two façade types with identical basic parameters were evaluated:

- Façade type 1: Mullion-transom façade with a glazed proportion of >70%
- Façade type 2: Ribbon-window façade with a glazed proportion of around 40%, parapet cladding inside and out

A standard polyester powder coating (IGP-DURA®*one* 56, RAL 9006) served as a reference. The additional costs apply exclusively to visible exterior surfaces; interior surfaces remain at a constant standard level.

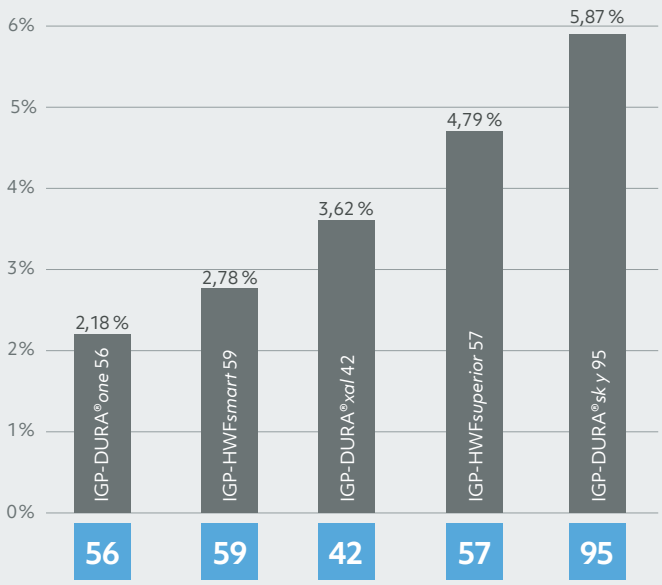
Infinity Office, Düsseldorf — IGP-HWF*classic* 59, photo by Alexander Bernhard



Coating costs categorized
For the total costs of the façade, the material differences in powder coatings play a subordinate role – their share is usually in the low single-digit range. Nevertheless, weather-resistant coating systems are one of the biggest factors affecting a building's ability to sustain its aesthetic impact and retain its value on a lasting basis.

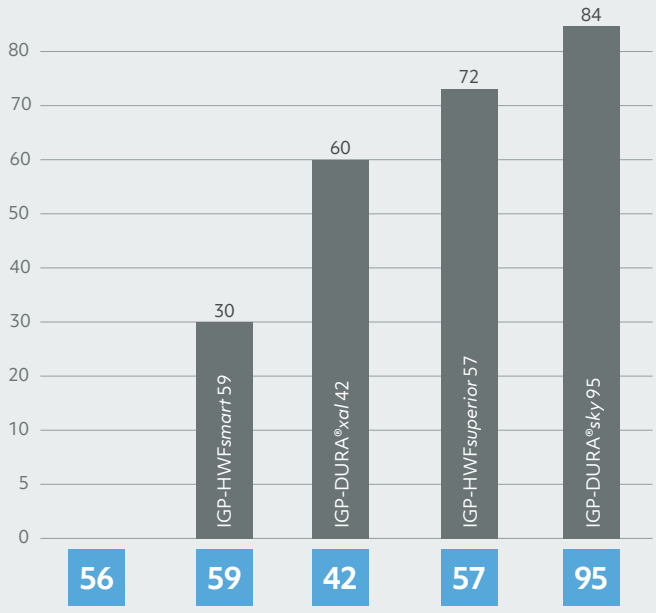
Façade costs considered over the life cycle
Façade surfaces are constantly exposed to various environmental influences. These include light, UV radiation, humidity, and rain. In addition, there are atmospheric pollutants from industry and traffic. The consequences are soiling, chalking, and loss of gloss. Regular cleaning is therefore crucial to maintain color, gloss, and surface quality, as well as to ensure the protective function over the long term. High-quality coating systems extend cleaning intervals and significantly reduce maintenance effort. The additional upfront costs usually pay for themselves within a few years through lower cleaning and maintenance costs as well as a consistently attractive appearance that lasts. Explaining these points to clients early on pays dividends. The authoritative reference here is the guidelines issued by the recognized certification bodies.

Share of coating in the façade costs*



*Example: powder-coated ribbon-window façade, approx. 40% glazed proportion, same standard coating on inside shell

Amortization in months compared with IGP-DURA®*one* 56*



Basis for comparison

*due to extended cleaning intervals

Decision-making basis for sophisticated architecture.

Glass proportion by façade type

IGP product series		IGP-DURA®*one* 56		IGP-HWF*smart* 59	
Area of application		Standard façade quality, weather-resistant powder coating		Standard and project quality, super durable powder coating	
Approvals of certification bodies, tests according to international standards		GSB Florida 1 QUALICOAT Class 1 AAMA 2603		GSB Florida 3 QUALICOAT Class 2 AAMA 2604	
Performance	**Tests**				
Weathering	Florida weathering RG* in %	1 year of exposure (GSB/QC) 1 yr: RG ≥ 50%		3 years of exposure (GSB/QC) 1 yr: RG ≥ 70%, 2 yr: RG ≥ 60% 3 yr: RG ≥ 50%	
	Color stability depending on the shade	According to the specifications of the certification bodies and standards		According to the specifications of the certification bodies and standards	
	WOM, accelerated weathering test (ISO 16474-2 Method A)	RG after 1000 h ≥ 50%		RG after 1000 h ≥ 90%	
	UV-B (313 nm) accelerated weathering	RG after 300 h ≥ 50%		RG after 600 h ≥ 50%	
Resistance to chemicals	Mortar resistance according to GSB & QUALICOAT	Slight visual changes possible with metallic coatings		Slight visual changes possible with metallic coatings	
	Acids, alkalis, neutral cleaning agents	To be checked on a case-by-case basis		To be checked on a case-by-case basis	
Minimum requirements for corrosion resistance	Condensation constant climate test	1000 h, DIN EN ISO 6270-2		1000 h, DIN EN ISO 6270-2	
	Acetic acid salt spray test (ISO 9227-ASS)	1000 h / GSB; 1000 h / QC Blisters ≤ 2 (S2) acc. to ISO 4628-2		1000 h / GSB; 1000 h / QC Blisters ≤ 2 (S2) acc. to ISO 4628-2	
Warranties					
Possible warranty agreements	Film integrity	12 years		15 years	
	Decorative properties**	6–12 years		8–15 years	
Cleaning					
Coating and maintenance costs	Glass proportion by façade type	40%	>70%	40%	>70%
	Influence on façade costs (100% = standard)	100%	100%	100,6%	100,2%
	Payback period	–	–	30 months	
	Cleanability	Good		Very good	
	Cleaning intervals example: City, moderate soiling	Maintenance cleaning every 18 months. Thorough cleaning every 7 years.		Maintenance cleaning every 24 months. Thorough cleaning every 8 years.	

*Residual gloss ** depending on the property's location

Quality levels compared

IGP-DURA®*xal* 42	**IGP-HWF*superior* 57**	**IGP-DURA®*sky* 95**
Object and design quality, super durable powder coating	High-end object quality, super durable Plus powder coating	Best-in-class object quality, extremely weather-resistant powder coating
QUALICOAT Class 2 AAMA 2604	GSB Florida 5 QUALICOAT Class 2 AAMA 2604	QUALICOAT Class 3 AAMA 2605
3 years of exposure (GSB/QC) 1 yr: RG ≥ 70%, 2 yr: RG ≥ 60% 3 yr: RG ≥ 50%	5 years of exposure (GSB) 5 yr: RG ≥ 50%	10 years of exposure (GSB/QC/AAMA) 3 yr: RG ≥ 80%, 5 yr: RG ≥ 70%, 7 yr: RG ≥ 60%, 10 yr: RG ≥ 50%
According to the specifications of the certification bodies and standards	According to the specifications of the certification bodies and standards	According to the specifications of the certification bodies and standards
RG after 1000 h ≥ 90%	RG after 1500 h ≥ 90%	No WOM; QC: Florida pre-stage 3 yr: ≥ 80 % RG
RG after 600 h ≥ 50%	RG after 1000 h ≥ 50%	No QUV-B; GSB: Florida pre-stage 5 yr: ≥ 80 % RG
Slight visual changes possible with metallic coatings	Slight visual changes possible with metallic coatings	Slight visual changes possible with metallic coatings
To be checked on a case-by-case basis	To be checked on a case-by-case basis	Excellent resistance
1000 h, DIN EN ISO 6270-2	1000 h, DIN EN ISO 6270-2	2000 h, DIN EN ISO 6270-2
1000 h / GSB; 1000 h / QC Blisters ≤ 2 (S2) acc. to ISO 4628-2	1000 h / GSB; 1000 h / QC Blisters ≤ 2 (S2) acc. to ISO 4628-2	1000 h / GSB; 2000 h / QC Blisters ≤ 2 (S2) acc. to ISO 4628-2
15 years	20 years	25 years
8–15 years	10–20 years	15–25 years
40% >70%	40% >70%	40% >70%
101,4% 101,0%	102,6% 102,2%	103,7% 103,3%
60 months	72 months	84 months
Very good	Excellent	Excellent, anti-graffiti properties
Maintenance cleaning every 24 months. Thorough cleaning every 8 years.	Maintenance cleaning every 30 months. Thorough cleaning every 10 years.	Maintenance cleaning every 36 months. Thorough cleaning every 10 years.



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