

HPC – HighPerformanceCoating

Technical information - April 2020

Main features:

The HighPerformanceCoating-System (HPC) is a further development of existing coatings based on polymer resin. It is characterised by high resistance to aging and color stability. The extremely high UV resistance makes the HPC colour system suitable for use in harsh weather conditions. The advantages are particularly visible for large-area applications in roof and facade applications. The HPC colour system provides three main advantages:

■ Flexibility:

HPC shows good flexibility, which is required for transformations such as bending and profiling

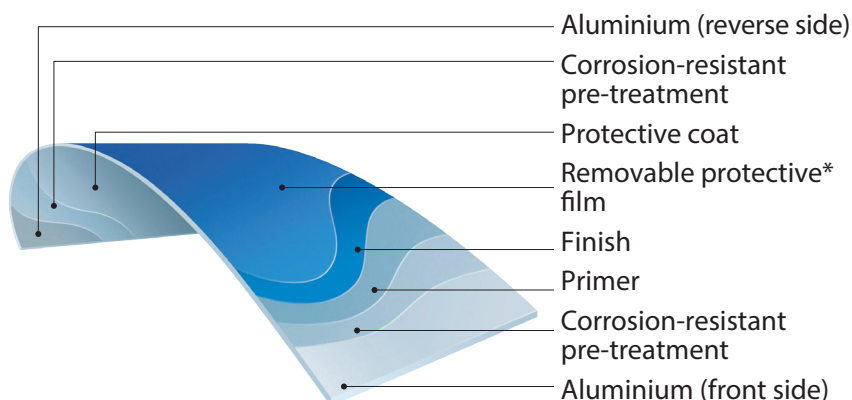
■ Aesthetic:

HPC offers an extremely large range of colours. The range includes a high matt finish.

■ Durability:

HPC not only provides a very high resistance to aging, UV and corrosion, but it is also effective against chalking. It is adapted to every kind of climate. Moreover, our products come with warranties up to 20 years for an exterior application.

HPC Colour structure:



*Protective film should be peeled-off immediately after the installation.

HPC Performance and durability		2-coats
Coating thickness depending on colour	EN 13523 – 1 ASTM D 7091	35 µm bis 40 µm
Specular gloss	EN 13523 – 2 ASTM D 523	High gloss, Satin, Matt (Gloss level 3% - 80%)
Durability class	NF EN 1396	Class 4: severe industrial – extreme conditions, very severe coastal marine (less than 3,000 m from the sea), high UV, plus severe conditions
Pencil hardness	EN 13523 – 4 ASTM D 3363	> HB
Resistance to cracking on rapid deformation	EN 13523 – 5 ASTM D 2794	No cracking, no loss of adhesion
Adhesion after indentation	EN 13523 – 6 ASTM D 3359	100 % of adhesion
Resistance to cracking on bending	EN 13523 – 7 ASTM D 4145	Very good flexibility (0.5T), depending on alloy and temper
Acetic salt spray fog resistance	EN 13523 – 8 ASTM G 85	1,000 h
Water immersion resistance	EN 13523 – 9 ASTM D 870	3,000 h
Humidity resistance	EN 13523 - 25 ASTM D 2247	3,000 h
Mortar test	AAMA 2605	No effect
Acid resistance 10 % HCl solution (15 min /23 °C) 20 % H2SO4 solution (18 h /23 °C) Nitric Acid	AAMA 2605 ASTM D 1308	Hydrochloric acid: no effect Sulphuric acid: no effect Nitric acid: ΔE < 5 units except some blue and metallic colours
Detergent resistance: 3 % VIGOR solution (72 h / 30 °C)	AAMA 2605	No effect
Colour fastness on natural weathering	Florida Exposure 45° South EN 13523 - 3 ASTM D 2244	After 5 years exposure: Colour variation: 5 to 10 units (ΔE) depending on colour
Resistance to chalking on natural weathering	45° Südflorida ASTM D 4214	Rating ≥ 8

HPC Guarantee according to climate zones

Climate zone	Definition	Guarantee
Moderates Climate zone	Roof (> 1.000 m from the sea)	up to 15 years (roof)
	Facade (> 1.000 m from the sea)	up to 20 years (facade)
Coastal area	Direct maritime environment (< 1,000 m from salt water)	up to 5 years
Tropical Climate zones	Aggressive, humid, subtropical to tropical climate zones with high solar radiation between the northern and southern 20th latitude	up to 7.5 years (roof)
		up to 10 years (facade)

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