

Working guideline for coating dimensionally stable and limited dimensionally stable construction elements

Windows –Front doors and Shutters – Garage doors

Coating system - Performance

The coating systems Performance represent the premium standard quality from ADLER for transparent and opaque coating dimensionally stable and limited dimensionally stable construction elements. With the quality Q10 of the top-coats a universal applicability for industrial and professional use is given thanks to the high block resistance and drying speed.

A general description of the suited coating systems is given below. To these coating cycles written guarantees are assigned. Please find the details in our brochure „Performance – Guarantee for coating windows and window-doors.“

A description of the coating systems in dependence of the wood species can be found in chapter 2 of the present working guideline.

Usable colour shades in dependence of the wood species can be found in the “General part” of the “Working guideline for coating dimensionally stable and limited dimensionally stable construction elements”, chapter 2 – Suited wood species.

1. Brief description of the coating systems

1.1. Transparent coating system for windows, shutters and doors

	Application method	Wet film thickness
Coating system AP: With complete weathersealing 1 x Aquawood TIG HighRes 5432 ff 1 x Aquawood Intermedio 53663 (windows) or Aquawood Intermedio HF 53769 (shutters) Slight smooth sanding: 1 x Aquawood DSL Q10 M 51751 ff or 1 x Aquawood DSL Q10 SG 59198 ff	Immersion or Flow-coating Immersion or Flow-coating Spraying	250 – 275 µm
Coating system BP: Full-bodied and good insulation effect 1 x Aquawood TIG HighRes 5432 ff 1 x Aquawood Intermedio ISO 53613 ff Slight smooth sanding: 1 x Aquawood DSL Q10 M 51751 ff or 1 x Aquawood DSL Q10 SG 59198 ff	Immersion or Flow-coating Spraying Spraying	100 – 125 µm 225 – 250 µm
Coating system CP: Iroko (at the moment the same like coating system B; before with special products) 1 x Aquawood TIG HighRes 5432 ff 1 x Aquawood Intermedio ISO 53613 ff Slight smooth sanding: 1 x Aquawood DSL Q10 M 51751 ff or 1 x Aquawood DSL Q10 SG 59198 ff	Immersion or Flow-coating Spraying Spraying	100 µm 225 – 250 µm

1.2. Opaque coating systems for windows, shutters and doors

	Application	Wet film thickness
<p>Coating system DP: With complete weathersealing – dark colour shades</p> <p>1 x Aquawood TIG HighRes 5432 ff 1 x Aquawood Intermedio 53663 or Aquawood Intermedio HF 53769 Slight smooth sanding: 1 x ADLER Acryl-Spritzlack Q10 M 4320 ff or 1 x ADLER Acryl-Spritzlack Q10 G 4325 ff</p>	<p>Immersion or Flow-coating Immersion or Flow-coating Spraying</p>	250 - 300 µm
<p>Coating system EP: With complete weathersealing – bright colour shades</p> <p>1 x Aquawood TIG HighRes Weiß 543700101 1 x Aquawood Intermedio 53663 or Aquawood Intermedio HF 53769 Slight smooth sanding: 1 x ADLER Acryl-Spritzlack Q10 M 4320 ff or 1 x ADLER Acryl-Spritzlack Q10 G 4325 ff</p>	<p>Immersion or Flow-coating Immersion or Flow-coating Spraying</p>	250 – 300 µm
<p>Coating System FP: High filling power and insulation</p> <p>1 x Aquawood TIG HighRes Weiß 543700101 1 x Acryl-Spritzfüller SL 41029 or 41002 Slight smooth sanding: 1 x ADLER Acryl-Spritzlack Q10 M 4320 ff or 1 x ADLER Acryl-Spritzlack Q10 G 4325 ff</p>	<p>Immersion or Flow-coating Spraying Spraying</p>	<p>150 – 200 µm 150 – 200 µm</p>
<p>Coating system HP: Okoume multilayer boards</p> <p>1 x Aquawood TIG HighRes Weiß 543700101 Slight smooth sanding: 1 x Acryl-Spritzfüller SL 41029 1 x Acryl-Spritzfüller SL 41029 If necessary, smooth intermediate sanding 1 x ADLER Acryl-Spritzlack Q10 M 4320 ff or 1 x ADLER Acryl-Spritzlack Q10 G 4325 ff</p>	<p>Immersion or Flow-coating Spraying Spraying</p>	<p>150 - 200 µm 150 - 200 µm 250 µm</p>
<p>Coating System IP: Mixed coating system with maximum insulation</p> <p>1 x 2K-Fenstergrundlack 69511 Slight smooth sanding: 1 x 2K-Fenstergrundlack 69511 1 x ADLER Acryl-Spritzlack Q10 M 4320 ff or 1 x ADLER Acryl-Spritzlack Q10 G 4325 ff</p>	<p>Spraying Spraying Spraying</p>	<p>200 µm 100 µm 150 – 200 µm</p>

Important advice:

For front doors we recommend to apply as a final coat Aquawood Protect 53215 in a two component version (better mechanical / chemical resistance) or to use generally the Protor coating system for front doors (see separate working instruction).

Note: The coating systems IP and IC (mixed coating systems) are considered special systems where only **one** guarantee is applied: Classic

Please observe the relative technical data sheets of the products.

2. Application on different wood species

2.1. Recommended Performance coating systems for coniferous wood:

Coniferous wood		Transparent coating systems			Opaque coating cycles DARK colour shades			Opaque coating systems BRIGHT colour shades		
		Windows	Shutters	Doors	Windows	Shutters	Doors	Windows	Shutters	Doors
Fir tree		AP	AP	BP	FP	DP	FP	FP	EP	FP
Spruce		AP	AP	BP	FP	DP	FP	FP	EP	FP
Yellow Pine		AP	AP	BP	FP	DP	FP	FP	EP	FP
Red Cedar		AP	AP	BP	FP	DP	FP	FP	FP	FP
Hemlock		AP	AP	BP	FP	DP	FP	FP	FP	FP
Pine		AP	AP	BP	FP	DP	FP	FP	FP	FP
Douglas		AP	AP	BP	FP	DP	FP	No recommendation	No recommendation	No recommendation
Larch		BP	AP	BP	FP	DP	FP	No recommendation	No recommendation	No recommendation
Russian Larch		BP	AP	BP	FP	DP	FP	No recommendation	No recommendation	No recommendation

2.2. The recommended Performance coating system for deciduous wood:

Deciduous wood	Transparent coating systems			Opaque coating systems DARK colour shades			Opaque coating systems BRIGHT colour shades		
	Windows	Shutters	Doors	Windows	Shutters	Doors	Windows	Shutters	Doors
Chestnut	BP	AP	BP	FP	DP	FP	FP	No recommendation	FP
Oak	BP	AP	BP	FP	DP	FP	FP	No recommendation	FP
Ash	BP	No recommendation	BP	FP	No recommendation	FP	FP	No recommendation	FP
Framiré	BP	AP	BP	FP	DP	FP	FP	No recommendation	FP
Meranti / Eucalyptus	BP	AP	BP	FP	DP	FP	FP	EP	FP
Mahogany	BP	AP	BP	FP	DP	FP	IP	IP	IP
Niangon	BP	AP	BP	FP	DP	FP	IP	IP	IP
Acajú	BP	AP	BP	FP	DP	FP	IP	IP	IP
Teak	BP	AP	BP	FP	DP	FP	IP	IP	IP
Okoumé solid	BP	AP	BP	FP	DC	FP	FP	EP	FP
Okoumé multilayer	No recommendation	AP	BP	No recommendation	DC	FP	No recommendation	HP*	HP*
Iroko	CP*	CP*	CP*	IP	IP	IP	IP	No recommendation	IP
MDF	No recommendation	No recommendation	No recommendation	No recommendation	No recommendation	IP	No recommendation	No recommendation	IP

CC*: Possibility of a mixed coating system: TIG HighRes – 2x 2K-Fenstergrund (150-200/100 µm), sanding after the first application – Aquawood Fensterlasur (250 µm)

HC*: Possibility of a mixed coating system: 2x 2K-Fenstergrund (200/200 µm), sanding after the first application – ADLER Acryl-Fensterlack (250 µm)

Note: The coating systems IP and IC (mixed coating systems) are considered special systems where only **one** guarantee is applied : Classic

3. Exceptions, not covered by the Performance-Guarantee

In some extreme cases the stress is so strong, that it is not possible to give a guarantee for the durability.

Elements, continuously and extremely exposed to water

These cases happen rarely, but an eye must be kept generally on it. If the coated wooden elements are located next to an irrigation system, the surface rest in contact with water for a long time. During the phase of drying water evaporates, leaving a trace of chalk on the surface. These spots can only be removed by abrasive cleansing products. If such cleansing products are often used, the surfaces may be damaged highly.

Elements, installed in indoor swimming pools

The perennial and high stress during a maximum concentration of air humidity and the subsequent formation of condense water can be so extreme that a premature damage is caused on the elements. On demand we can recommend special coating systems.

Elements next to the beach, in a distance smaller than 50 m

Ad a distance of less than 50 m from the beach elements can be exposed to extreme stress, caused by the sand carried on by the wind. Sand is a great abrasive strain on the surface, and a reduction of the coating film can follow-up. In this case the coating film cannot sufficiently protect the wood. Compared to sand the damage caused by salt are very restricted.

Elements, installed in an altitude of more than 1600 m /over the sea

It is known that weathering conditions in alpine zones, especially because of the high intensity of UV radiation, are extremely challenging. Furthermore, because of very great fluctuation in temperature, the wood substrates as well as the coating film are exposed to heavier strain.