



RENNER
WOOD COATINGS





Renner Italia coating systems

They have been divided into the following segments:

OUTDOOR JOINERY

Such as windows and door-windows in wood or wood-aluminium, shading systems (blinds, shutters), solid wood entrance doors

EXTERIOR DOORS

Such as panels for armoured exterior doors and overhead doors for garages

OUTDOOR STRUCTURES

Such as gazebo, grids, pergolas, fences, car-port roofs, flower boxes, garden houses, park games for children, swimming pool surrounds



Outdoor joinery transparent coating systems

Windows and door-windows in wood or wood-aluminium, shading systems (blinds, shutters), solid wood entrance doors

(1) Specific for iroko

		SOFTWOODS		HARDWOODS		
		without resin bags	with resin bags	poor in tannins and moderately durable or not very durable	rich in extracts and tannins and moderately durable	rich in extracts and tannins and durable or very durable
Passage Number		fir, pine, hemlock, pitch pine, yellow pine	larch, douglas fir, cedar	meranti, okoumè, sapelli	niangon, american oak	iroko, chestnut, teak, european oak, mfumbi
1	Primer	YM M031	YM M031	YM M031		
		YM M099	YM M099	YM M099	YM M099	
2	Preservative wood stains	YM M040/Txx	YM M040/Txx	YM M040/Txx	YM M042/Txx	YM M042/Txx
		YM M090/Txx	YM M090/Txx	YM M090/Txx	YM M092/Txx	YM M092/Txx
		YM S803/Txx	YM S803/Txx			
3	Intermediate base coat	YL M150	YL M150	YL M150	YL M150	YL M150
		YL M153	YL M153	YL M153	YL M153	YL M153
		YL M154/T13	YL M154/T13	YL M154/T13	YL M154/T13	YL M154/T13
		YL M190/T12	YL M190/T12	YL M190/T12	YL M190/T12	YL M190/T12
4	End grain protection	AY M422	AY M422	AY M422	AY M422	AY M422
	“V” joint protection	AP M902	AP M902	AP M902	AP M902	AP M902
5	Base coat	YL M214	YL M214	YL S248/T13	YL S248/T13	YL S248/T13
		YL M263/T13	YL M263/T13	YL M263/T13	YL M263/T13	YL M263/T13
		YL M268/T13	YL M268/T13			
		YL M282/T13	YL M282/T13	YL M282/T13	YL M282/T13	YL M282/T13
		YL M291/T12	YL M291/T12	YL M291/T12	YL M291/T12	YL M291/T12
					YL M277/T13 ⁽¹⁾	
6	Top coat	YO xxM317/Txx	YO xxM317/Txx	YO xxM317/Txx	YO xxM317/Txx	YO xxM317/Txx
		YO xxM329/Txx	YO xxM329/Txx	YO xxM329/Txx	YO xxM329/Txx	YO xxM329/Txx
		YO xxM370/Txx	YO xxM370/Txx	YO xxM370/Txx	YO xxM370/Txx	YO xxM370/Txx
		YO xxM390/Txx	YO xxM390/Txx	YO xxM390/Txx	YO xxM390/Txx	YO xxM390/Txx



Outdoor joinery pigmented coating systems

Windows and door-windows in wood or wood-aluminium, shading systems (blinds, shutters), solid wood entrance door

Passage Number		SOFTWOODS		HARDWOODS		
		without resin bags	with resin bags	poor in tannins and moderately durable or not very durable	rich in extracts and tannins and moderately durable	rich in extracts and tannins and durable or very durable
		fir, pine, hemlock, pitch pine, yellow pine	larch, douglas fir, cedar	meranti, okoumè	niangon, american oak, sapelli	iroko, chestnut, teak, european oak, mfumbi
1	Primer	YM M099	YM M099	YM M099	YM M099	
2	Preservative wood stain	YM M044/Cxx or NTR	YM M044/Cxx or NTR	YM M044/Cxx or NTR	YM M044/Cxx or NTR	YM M044/Cxx or NTR
		YM M048/C02		YM M048/C02		
3	Intermediate base coat	YL M150		YL M150		
		YL M153		YL M153		
		YL M154/NTR		YL M154/NTR		
4	End grain protection	AY M422	AY M422	AY M422	AY M422	AY M422
	“V” joint protection	AP M902	AP M902	AP M902	AP M902	AP M902
5	Base coat	YL M214/C02		YL S248/C02 or NTR		
		YL M268/Cxx or NTR				
		YL M274/C02				
		YL M282/C02 or NTR	YL M282/C02 or NTR	YL M282/C02 or NTR	YL M282/C02 or NTR	YL M282/C02 or NTR
6	Top coat	YO xxC317/xxxxx	YO xxC317/xxxxx	YO xxC317/xxxxx	YO xxC317/xxxxx	YO xxC317/xxxxx
		YO xxC370/xxxxx	YO xxC370/xxxxx	YO xxC370/xxxxx	YO xxC370/xxxxx	YO xxC370/xxxxx



Exterior doors transparent coating systems

Panels for armoured exterior doors and overhead doors for garages

Passage Number		MULTILAYER PANELS OR MULTILAYER VENEERED OKOUMÈ		MULTILAYER VENEERED FORMAGER		MULTILAYER OKOUMÈ
		SOFTWOODS	HARDWOODS	SOFTWOODS	HARDWOODS	
1	Preservative wood stain					
	- Spray	YM M036 + paste	YM M036 + paste	YM M036 + paste	YM M036 + paste	YM M036 + paste
	- Flow coating	YM M040/Txx YM M090/Txx	YM M042/Txx YM M092/Txx	YM M040/Txx YM M090/Txx	YM M042/Txx YM M092/Txx	YM M040/Txx YM M090/Txx
2	Intermediate base coat					
	- Spray		YL C341			YL C341
	- Flow coating	YL M150	YL M150			YL M150
		YL M153	YL M153			YL M153
YL M190/T12		YL M190/T12			YL M190/T12	
3	Insulating base coat			YL M260	YL M260	
4	Base coat	YL M263/T13	YL M263/T13	YL M263/T13	YL M263/T13	YL M263/T13
		YL M268/T13	YL S248/T13	YL M268/T13	YL M268/T13	YL S248/T13
		YL M291/T12	YL M291/T12	YL M291/T12	YL M291/T12	YL M291/T12
5	Top coat	YO xxM329/Txx	YO xxM329/Txx	YO xxM329/Txx	YO xxM329/Txx	YO xxM329/Txx
		YO xxM370/Txx	YO xxM370/Txx	YO xxM370/Txx	YO xxM370/Txx	YO xxM370/Txx
		YO xxM390/Txx	YO xxM390/Txx	YO xxM390/Txx	YO xxM390/Txx	YO xxM390/Txx



Exterior doors pigmented coating systems

Panels for armoured exterior doors and overhead doors for garages

		MULTILAYER OKOUMÈ	MDF FOR OUTDOORS
Passage Number			
1	Preervative wood stain	YM M044/xxx	
2	Intermediate base coat		
	- Spray	YL C341	
	- Flow coating	YL M150	
3	Base coat	YL S248/C02 or NTR	YL M268/NTR
			YL M274/C02
4	Top coat	YO xxC317/xxxxx	YO xxC317/xxxxx
		YO xxM370/xxxxx	YO xxM370/xxxxx

Outdoor structures transparent coating systems

Gazebo, grids, fences, car-port roofs, flower boxes, garden houses, park games for children, swimming pool surrounds

Passage Number		Without thickness of the coating film	Limited thickness of the coating film	High thickness of the coating film
1	Primer	YM M099	YM M099	YM M099
2	Preservative wood stain	RM 1*10	RM 1*10	
		RC 1*30	RC 1*30	
		RG 1*80	RG 1*80	
		YM M090/Txx	YM M090/Txx	YM M090/Txx
		YM M092/Txx	YM M092/Txx	YM M092/Txx
3	Preservative wood stain	RM 1*10	RM 1*10	
		RC 1*30	RC 1*30	
		RG 1*80	RG 1*80	
		YM M090/Txx	YM M090/Txx	
		YM M092/Txx	YM M092/Txx	
4	Intermediate base coat			YL M190/T12
5	Top coat		RC 2030 or RC 3030	YO xxM390/Txx
			RF 1*20	
			YO xxL073/Txx	
			YO xxC018/Txx	
6	Top coat		RC 2030 or RC 3030	YO xxM390/Txx
			RF 1*20	
			YO xxL073/Txx	
			YO xxC018/Txx	

The products with RM, RC, RF, RG codes belong to the Rio Verde line.



Outdoor structure pigmented coating systems

Gazebo, grids, fences, car-port roofs, flower boxes, garden houses,
park games for children, swimming pool surrounds

Passage Number		Limited thickness of the coating film	High thickness of the coating film
1	Primer	YM M099	YM M099
2	Preservative wood stain	RM 2010	RM 2010
		YM M044/Cxx or NTR	YM M044/Cxx or NTR
3	Primer	RM 2010	RM 2010
		YM M044/Cxx or NTR	YM M044/Cxx or NTR
4	Top coat		RL 1*40
			YO xxC317/Rxxxx
			YO xxC370/Rxxxx
5	Top coat		RL 1*40
			YO xxC317/Rxxxx
			YO xxC370/Rxxxx

The products with RM, RC, RF, RG codes belong to the Rio Verde line.

Catas Quality Award Certifications

The production cycles of the Aquaris range boast five different Catas certifications; the largest Italian research & development institute and test laboratory for the wood-furniture sector. The institute elaborates a specific test plan in order to issue the Quality Award mark. Successively, the Catas technicians inspect the production plant, withdrawing samples to analyse and collect the relative documentation.

The Catas laboratory then performs the tests envisioned by the technical regulations.

Only after passing all of the steps of the procedure described does the Catas Certification Committee decide whether to confer the quality award. Keeping the mark means that the company must constantly check production, sending Catas punctual reports of the monitoring tests. Every year the body must also verify that the coatings comply with the previously-fixed chemical, physical and performance parameters.

TESTS CARRIED OUT FOR ISSUE OF THE CATAS QA

TESTS ON THE LIQUID PRODUCT

UNI EN ISO 3251 Solids Content

PTP CATAS Gas-chromatographic analysis

PTP CATAS Effectiveness of the biocides. Growth inhibition test on agar

TESTS ON THE APPLIED PRODUCT

EN 927-3 Natural ageing

EN 927-6 Artificial ageing

CATAS method Permeability to UV rays

CATAS-WKI method (HO.03) Elasticity of the film

EN 12720 Resistance to water

EN 927-5 Permeability to water

EN ISO 4622 stacking or aptitude for stacking

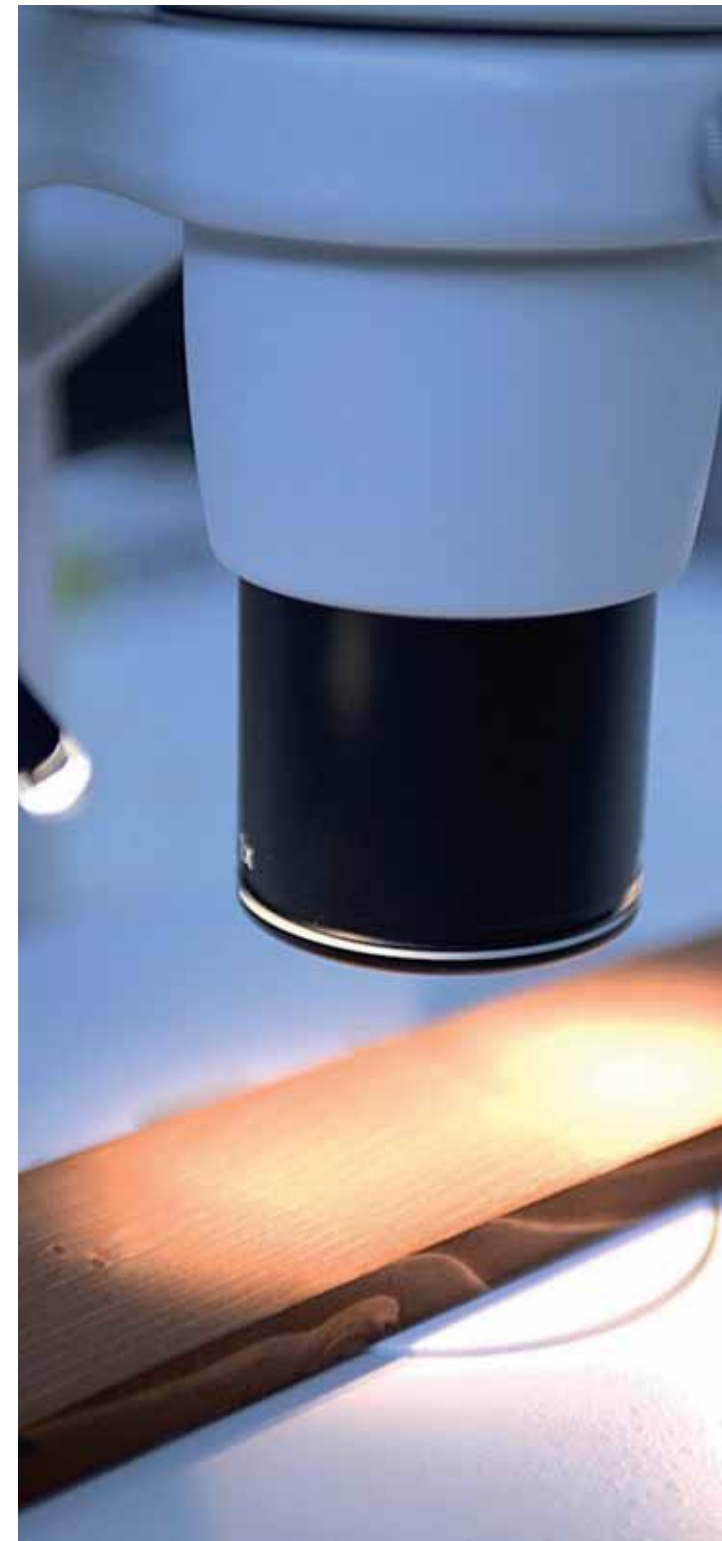




Table with requisites for the attainment of the Catas-QA and results obtained by Aquaris primers and top coats

TEST DESCRIPTION	REFERENCE STANDARD	TEST CONDITIONS	REQUISITE	CQA 14/05 YMM040/Txx YOxxM317/Txx	CQA 24/07 YMM042/Txx YOxxM317/Txx	CQA 18/05 YMM041/Txx YOxxM329/Txx	CQA 19/07 YMM090/Txx YOxxM390/Txx	CQA 25/07 YMM092/Txx YOxxM390/Txx
Natural ageing	EN 927-3		Cat. Stable (EN 927-2)	Stable	Stable	Stable	Stable	Stable
Artificial ageing	EN 927-6		Cat. Stable (EN 927-2)					
Permeability to UV rays	CATAS method	280-340 nm	< = 1%	0,75%	0,75%	0,79%	0,56%	0,56%
		280-440 nm	< = 20%	20,43%	20,43%	20,62%	12,86%	12,86%
Elasticity of the free film	CATAS-WKI method		> = 20%	215%	215%	159%	211%	211%
Resistance to water	UNI EN 12720		> = 4	4	4	4	4	4
Permeability to water	EN 927-5		< = 175 g/m ²	67 ± 3 g/m ²	67 ± 3 g/m ²	73 ± 3 g/m ²	100 ± 2 g/m ²	100 ± 2 g/m ²
Stacking	EN ISO 4622	At 23°C	< = 3	No defects	No defects	No defects	No defects	No defects
		At 50°C	< = 3	No defects	No defects	No defects	No defects	No defects
Biocides effectiveness	CATAS method	Brown rot	Inhibited growth	Inhibited: > 10 mm	Inhibited: 8 mm	Inhibited: 8 mm	Inhibited: > 10 mm	Inhibited: > 10 mm
		White rot	Inhibited growth	Inhibited: 2 mm	Inhibited: 1 mm	Inhibited: 0 mm	Inhibited: 6 mm	Inhibited: 7 mm
		Blueing	Inhibited growth	Inhibited: > 10 mm	Inhibited: > 10 mm	Inhibited: > 10 mm	Inhibited: > 10 mm	Inhibited: > 10 mm

Cleaning and renewing outdoor joinery

Periodical cleaning and renewal of the film of coating are the basis of long duration of the joinery. The Renner Italia maintenance kit is particularly suitable for entry doors, windows, blinds and shutters coated with transparent and pigmented systems. Using the neutral water-based detergent **T.Clean RR1050** and the water-based reviving toner **T.Top+ RR1250**, both in the **Rio Verde line**, the wooden items will not age.

CLEANING

Objective. Cleaning windows and shutters exposed to outdoor is the first important operation to be performed for correct maintenance. Acid rain, atmospheric pollution and saline environments accelerate the decay process of the coating. The removal of greasy materials, smog dust and anything else deposited on the film already represents great care of the window.

T.CLEAN DETERGENT

Material Water-based neutral detergent T.Clean RR1050, cloth in micro fibre.

Method of use Spray the detergent onto the surface of the window. Now dry using a cloth.

Frequency Every six months in normal conditions, before the winter period and before the summer period. In the case of particularly aggressive environments cleaning must be intensified.





RENNER
WOOD COATINGS