



UV COATINGS

CONTENTS

- page 3 Coatings featuring ultraviolet drying
- page 5 UV lamps and systems - *Lamps*
- page 7 *Reflectors*
- page 8 General application conditions for best results -
Substrate - Environment - Product viscosity
- page 9 Type of coatings
- page 10 Type of applications
- page 11 Products
- page 12 UV-drying topcoats
- page 13 UV-drying basecoats
- page 14 Coating systems - *Coating systems for papers and foils*
- page 20 *Coating systems for parquet flooring*
- page 22 *Coating systems for doors*
- page 25 *Coating systems for shutters*
- page 26 *Coating systems for profiles and baseboards*



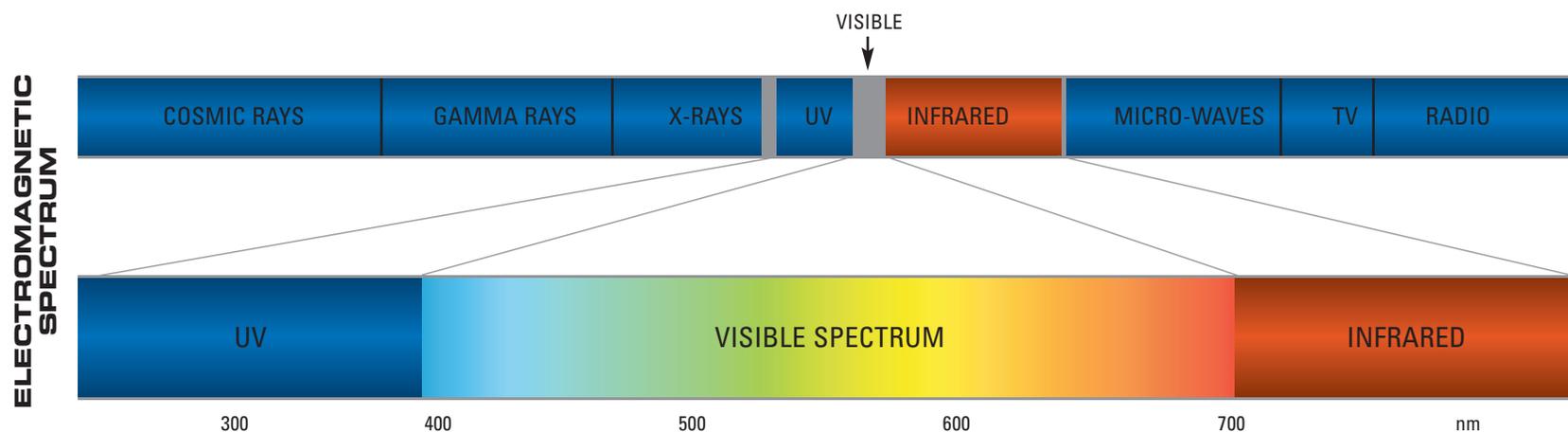
COATINGS FEATURING ULTRAVIOLET DRYING

Light, as we all know, is an electromagnetic phenomenon. It is only one component of the continuous group of radiation ranging from radio waves to gamma rays, namely a small part of the so-called electromagnetic spectrum.

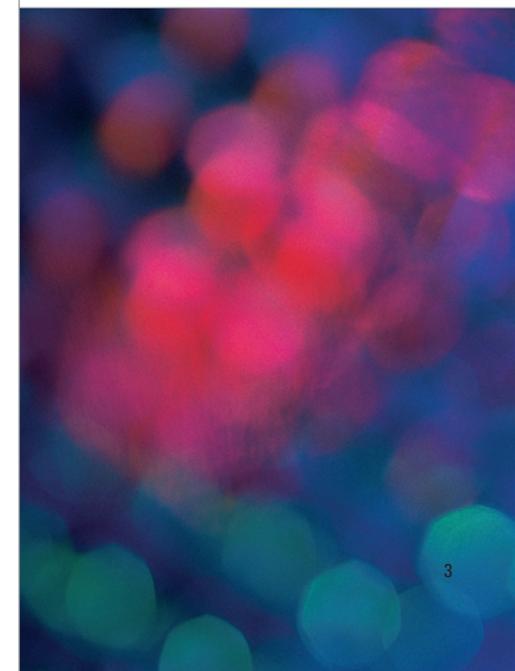
Within the electromagnetic spectrum, only a tiny portion belongs to the visible spectrum and another to the ultraviolet spectrum. The visible spectrum is the group of wavelengths to which the human eye is sensitive and that are at the basis of the perception of colours.

As a general rule, the visible spectrum lies between 380 and 780 nanometres. The smaller wavelength corresponds to the chromatic range of blue-violet, while the longer wavelength corresponds to the range of reds.

The portion of rays involved in the polymerisation of coatings is in the ultraviolet spectrum. Ultraviolet is the name given to a zone of the spectrum of electromagnetic rays with a wavelength of between 100 and 400 nanometres (nm), situated between the visible spectrum and the X rays.



In fact, some substances strongly absorb UV, emitting other rays of a longer wavelength, generally in the visible range. In the curing of coatings, the UV radiation is absorbed by special substances called photoinitiators, which absorb the energy of the ultraviolet rays, setting off a chain reaction inside the coating, thus allowing for very rapid polymerisation.





The first coatings featuring UV drying properties made their appearance in 1965, and were intended purely for the filling of chipboard panels.

For approximately 15 years, this new coating technology for wooden items was underestimated by the professionals in this sector and by the manufacturers of raw materials for coatings.

This is presumably due to:

- poor functional and aesthetic performance levels;
- impossible use for furniture topcoats;
- shortage of suitable resins and photoinitiators;
- expensive nature, of both the coatings themselves as well as the coating application systems and UV curing technology.

In light of the above, many operators declared that these new technologies had no future in the wood sector: let us not forget that the majority of furniture producers were of limited size, small craftsmen in mostly family-run businesses.

The current UV technology has contributed to the recent innovations in the furniture sector, and now we benefit from technologically advanced industries that are on a par with all other sectors.

SAYERLACK, a leading company producing coatings for wood, dedicates a good portion of its resources to research into new products and new solutions, developing and trying to predict future market trends, taking into account that now more than ever the study of new products has to respect the ecology of the environment and human safety.

The main advantages of using UV curable coatings are:

- High production speeds;
- Savings in terms of space;
- Coatings with extended or unlimited pot life;
- Acrylic paints generally ready to use;
- Low or non-existent solvent emissions into the air;
- Items ready to be packaged at the end of the production cycle.

UV LAMPS AND SYSTEMS

The UV drying system consists of:

- Lamps
- Parabolic reflectors
- Control unit
- Cooling system

The lamps used in the wood sector are:

Low pressure	= 0,28 W	to	7 W	(10 W – 12 W	1 bar)
Medium pressure	= 7 W	to	50 W	(80 W – 100 W	1 bar)
High pressure	= 50 W	to	200 W	(360 W	100 bar)

Low Pressure Lamps

Low Pressure Lamps (Low Power) are used after the flash period for pre-gelling.

They favour the release of paraffins in UV polyester systems, and they make the matting agents even in mat topcoat systems, both in the presence of volatile solvents as well as in the presence of reactive monomers.

The most commonly used are:

TL 05 Emission at 360 nm - For clear systems;

TL 03 Emission at 420 nm - For pigmented systems;

and the brand new TL 10 at 360 Nm but with greater UV intensity.

Usually, both TL 03 and TL 05 lamps are used for clear or pigmented systems.

The current systems are already designed to accommodate alternating TL 05/TL 03 lamps.

LAMPS





Medium Pressure Lamps

Their function is to speed up the gelling process. They are used frequently in short systems. Other types of GEL lamps include high power ones reflected onto graduated reflective strips.

GEL 360 nm to 420 nm - 15 W to 35 W

High Pressure Lamps

Their role is to complete the hardening phase for the surface film.

The High Power UV Lamps used in the wood sector are metal-starter arc lamps.

The excitation of the metal atoms (starter) takes place by means of the electrical discharge.

The lamps are mostly made up of a glass tube (quartz) and two electrodes.

The glass tube is filled with argon or other gases and a small quantity of metal, such as mercury.

Metal Starter	Main Peak
MERCURY	366 nm
GALLIUM	410 nm – 420 nm
INDIUM	415 nm – 455 nm
GALLIUM + INDIUM	412 nm – 455 nm
IRON	360 nm – 410 nm

The operating temperature inside the bulb can vary between 700°C and 750°C for mercury lamps, and up to 1000°C for iron lamps.

So-called "OZONE FREE" mercury-starter lamps are also available for purchase.

Through the use of silicates, the radiation emitted in the short UV - which is the reason for the formation of ozone - is eliminated.

The spectrum of electromagnetic waves is very extensive, and only a portion of it is suitable for the polymerisation of our products.

REFLECTORS

Their function can be summarised as follows:

- Dispersing the heat generated by the lamps;
- Conveying the UV rays into a single spot.

They are generally divided up into three categories:

- Flat
- Elliptical
- Parabolic

Flat reflectors

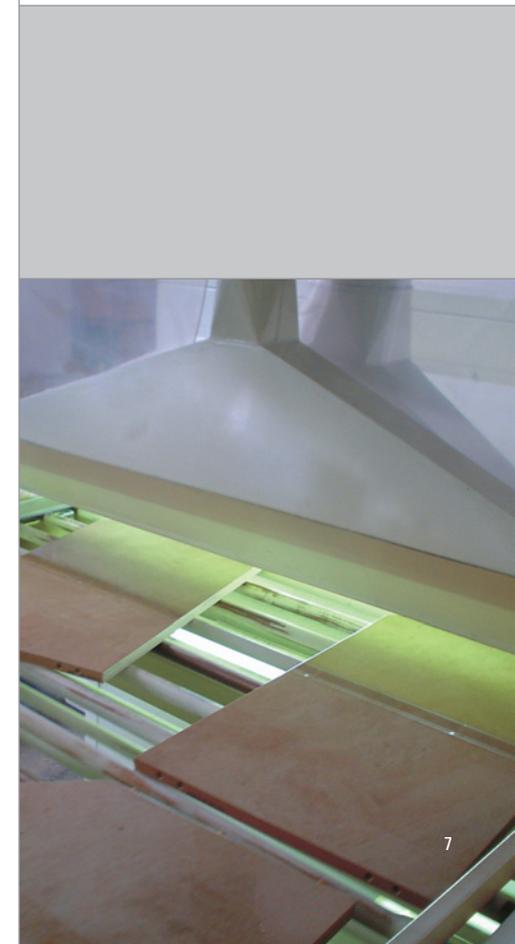
The radiation is not focused, but rather reflected by the aluminium surface of the reflector.

Elliptical reflectors

This is a high efficiency reflecting system: the principle is based on a light source located between the first focus of an ellipse and the coated part; the major drawback is that, as the distance between the lamp and the part varies, the focus is lost thus making the system less efficient.

Parabolic reflectors

These are the most commonly used, since they allow for a concentrated light beam to be emitted.



GENERAL APPLICATION CONDITIONS FOR BEST RESULTS

SUBSTRATE

The moisture content of the wood should be between 8% and 14%.

Everyone knows how important the drying or seasoning of wood is before it is used for manufacturing and coating. Experience has taught us that to obtain a good coating, the wood should have a moisture content of between 8% and 14%: with humidity values outside this range, various phenomena may occur, such as: the detachment of the coating film, opalescence of the surface, spotting, blistering, white pores, cracking, etc.. This is why before beginning the coating process, a good technician always checks the degree of moisture content of the substrate so as to avoid any nasty surprises after or even during the coating process.

The surface must be nice and smooth.

We recommend it to be sanded with a 100/120 grain paper for natural woods, and with a maximum of 120/150 grain for woods to be stained. For open-pore and natural ash, we recommend the use of several papers: 150-180-240.

ENVIRONMENT

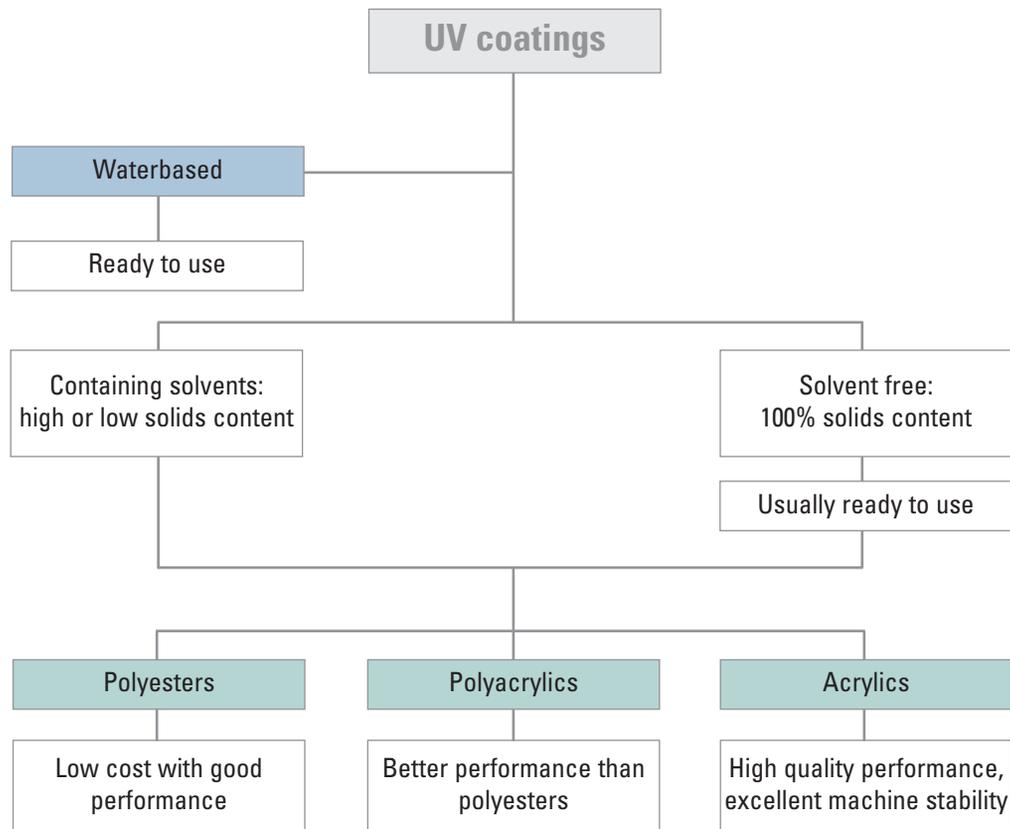
It is very important to know the temperature and relative humidity where the coating process will take place. By knowing this information, before beginning the coating process, a number of inconveniences can be avoided. All technicians know how the ambient temperature affects coatings and how to use any necessary additives depending on whether the ambient temperature is too low or too high.

PRODUCT VISCOSITY

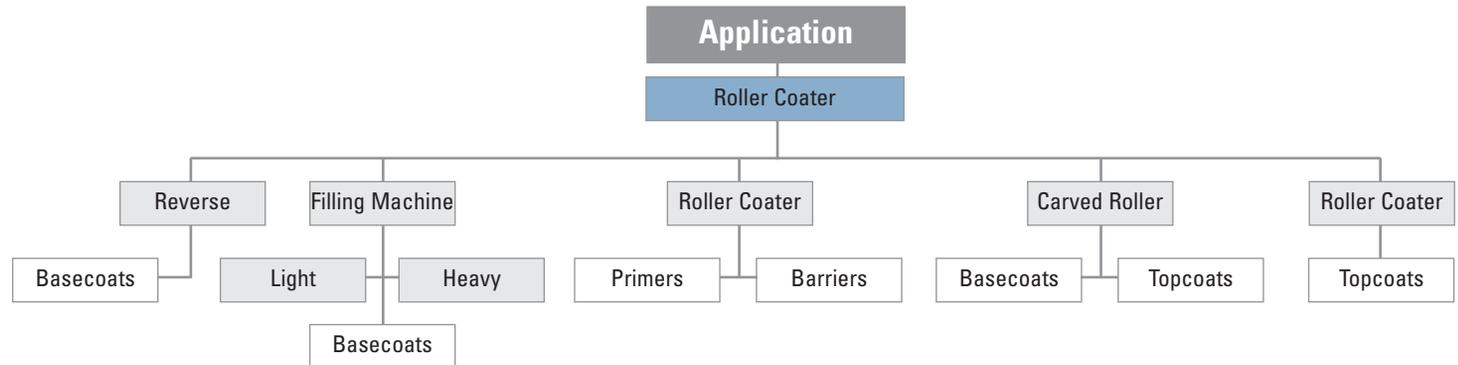
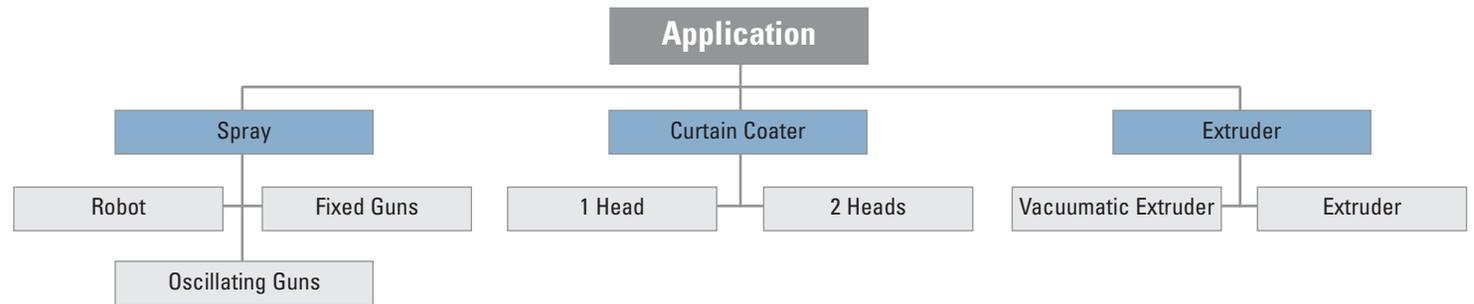
The viscosity is the information which is of most interest to the application technician to check the coating, to establish the thinning ratio, to keep the hue of a colour constant and to adapt the product different application methods. In any case, every application technician, before beginning the coating process, should check both the temperature and relative humidity of the location, as well as the viscosity of the coating prepared.

TYPE OF COATINGS

Coatings featuring UV drying can be divided up as follows:



TYPE OF APPLICATIONS



PRODUCTS

PHOTOINITIATORS/HARDENERS AND ADHESION-PROMOTERS

RX 7103	PHOTOINITIATOR FOR UV ACRYLICS
RX 7104	GRIPPER
RX 7106	UV PHOTOINITIATOR
RX 7108	NON-YELLOWING PHOTOINITIATOR FOR PIGMENTED COATINGS
RX 7160	ADHESION-PROMOTER
RX 8210	PHOTOINITIATOR
RX 8214	NON-YELLOWING PHOTOINITIATOR
RX 8218	UV DEEP PHOTOINITIATOR
RX 8220	NON-YELLOWING PHOTOINITIATOR
RX 8227	NON-YELLOWING PHOTOINITIATOR - with UV barrier
RX 8228	NON-YELLOWING PHOTOINITIATOR
RX 8229	PHOTOINITIATOR
RX 8275	PHOTONITIATOR FOR PIGMENTED COATINGS (designed for highly pigmented systems)



UV-DRYING TOPCOATS

CODE	CURTAIN COATING TOPCOATS	BASECOATS/ TOPCOATS FOR VACUUM	TOPCOATS FOR GROOVED ROLLER	TOPCOATS FOR ROLLER	TOPCOATS BY SPRAY	SELF-SEALERS BY SPRAY	SOLIDS CONTENT %	GLOSS LEVEL	CLOSED PORE	OPEN PORE	SELF-SEALERS	USE	ACRYLIC	POLYACRYLIC	POLYESTER	READY TO USE
RZ 1620/00							52	20-40-80				TLM drying + Final UV				
RZ 1710/00							62	10-70				TLM drying + Final UV				
RZ 9020/00							35	20				TLM drying + Final UV				
RZ 9410/00							97	10				Final UV				
RZ 9720/00							94	20-50				High solids TLM drying + Final UV				
RZ 7010/00							100	10				General purpose				
RZ 7010/13							100	10				White topcoat				
RZ 7810/13							100	10				Matt White topcoat				
RZ 7840/13							100	40				Matt White topcoat				
RZ 7210/00							100	10-20-50-80				General purpose				
RZ 8120/00							100	20-50-90				Parquet flooring				
RZ 9210/00							87	10-30-80				General purpose				
RZ 9810/00							93	10-20-40				General purpose				
RZ 9110/00							30	10-30-50				General purpose				
RZ 9910/00							32	10-30-50				Non-yellowing, General purpose				
RZ 8720/00							38	20-90-5				General purpose				
RL 8805/00							91	Gloss				Gloss, General purpose				
RL 8805/74							75	Gloss				Gloss, General purpose, White				
RL 8807/00							96	Gloss				Gloss, General purpose				
RL 8811/68							98	Gloss				Gloss, General purpose, White				
RL 8829/00							96	Gloss				Gloss, Non-yellowing				

UV-DRYING BASECOATS

CODE	PRIMER	BASECOAT FOR FILLING MACHINE	BASECOAT FOR ROLLER/ REVERSE	BASECOAT FOR VACUUM	DUAL CURE SPRAY BASECOAT	CURTAIN COATING BASECOAT	SOLIDS CONTENT %	VISCOSITY	YELLOWING	NON-YELLOWING	SANDABLE	USE	ACRYLIC	POLYACRYLIC	POLYESTER	READY TO USE
RU 381/00							100	30" Din8				General purpose				
RU 382/00							100	50" Din8				High wettability for resinous woods				
RU 385/00							100	170" Din4				High adhesion on stained wood				
RU 7507/00							100	20" Din8				General purpose				
RU 7518/00							54	35" Din8				For parquet flooring				
RU 7585/00							100	80" Din8				General purpose, paper				
RU 7575/68							100	35" Din8				General purpose, Extra White				
RU 7424/13							91	30" Din8				General purpose				
RU 7592/41							100	37" Din8				General purpose White for chipboard				
RU 7511/00							96	54000 Cps				General purpose				
RU 7545/00							100	10000 Cps				General purpose				
RU 7560/00							100	22000 Cps				For chipboard and frames				
RU 7564/00							100	14000 Cps				For wood and frames				
RU 7512/00							100	130" Din8				General purpose				
RU 7525/00							100	80" Din8				General purpose				
RU 7526/00							100	65" Din8				General purpose, Semi-filled				
RU 7532/00							100	75" Din8				General purpose, Semi-filled				
RU 7547/00							100	35" Din8				General purpose, Clear				
RU 7558/00							100	20" Din8				For open pore				
RU 7561/00							100	35" Din8				For wood, clear				
RU 7586/00							100	260000 Cps				General purpose, Filled				
RU 7588/00							100	70" Din8				General purpose, Clear				
RU 7577/00							100	30000 Cps				For parquet flooring				
RU 7565/00							100	50" Din4				General purpose				
RU 7568/00							38	60" Din4				General purpose				
RU 7576/00							70	45" Din4				High solids, profiles				
RU 7579/00							40	45" Din4				General purpose, Non-yellowing				
RU 7602/00							82	90" Din4				General purpose				

COATING SYSTEMS

COATING SYSTEMS FOR PAPERS AND FOILS

Several types of papers and foils are currently available for use in the preparation of the coating substrate or as a finished product. They are usually used for the finishing of MDF or Chipboard, which are highly porous substrates with high absorption. The types of papers normally used as a substrate for the coating process are of the pre-impregnated type. Coating systems for papers requires either a sealer to seal absorbent pre-impregnated foils or an adhesion promoting (gripper) sealer in the case of melamine papers. The next in-line coating is the roller application of a filler designed to be placed between the sealer and the next coat of filler that will be sanded to obtain a smooth surface. At this stage, the choice of the subsequent coating phases depends on the coating line and on the final quality desired. After this introduction, let us move on to the detailed description of the various products and systems.

SEALERS

TI 1286

Ideal roller sealer for coating impregnated and melamine papers.

Hardened with TH 2569, it is applied by roller in a single coat, in quantities of 10-20 g/m² and dried for 5-10 seconds using IR lamps. Featuring excellent machine stability and long pot life.

TR 5008

Ideal roller sealer for coating impregnated papers.

Hardened with TH 2587, it is applied by roller in a single coat, in quantities of 10-20 g/m² and dried for 5-10 seconds using IR lamps. Compared with TI 1214, it has better machine stability.

TI 1214

Sealer designed for coating melamine and finish papers.

Hardened with TH 2580 or TH 2584, it is applied by roller in a single coat, in quantities of 10-20 g/m² and dried for 5-10 seconds using IR lamps. Featuring excellent adhesion on difficult to coat papers, but with relatively short pot life.

During application, maintain the product viscosity by adding thinner DT 5010 with the aid of a dripper.



GRIPPER BASECOATS

IC 140

General purpose polyester filler.

Photoinitiated at 4% with RX 8220, it is applied by roller coater at 20-30 g/m² and gelled with high pressure 80 W/cm² Mercury lamps and then over-applied directly with a sandable filler. Together with the sealer, it ensures adhesion and plasticity.

RU 7505

General purpose polyacrylic filler.

Photoinitiated at 4% with RX 8220, it is applied by roller coater at 20-30 g/m² and gelled with high pressure 80 W/cm² Mercury lamps and then over-applied directly with a sandable filler. Together with the sealer, it ensures adhesion.

RU 7585

Acrylic filler for coating systems where high aesthetic quality is required.

Photoinitiated at 4% with RX 8220, it is applied by roller coater at 20-30 g/m² and gelled with high pressure 80 W/cm² Mercury lamps and then over-applied directly with a sandable filler.

Compared with RU 7505, it reduces the drop of subsequent coats and therefore, in the case of a system with a gloss topcoat, a fuller and glossier final surface.

SANDABLE FILLERS

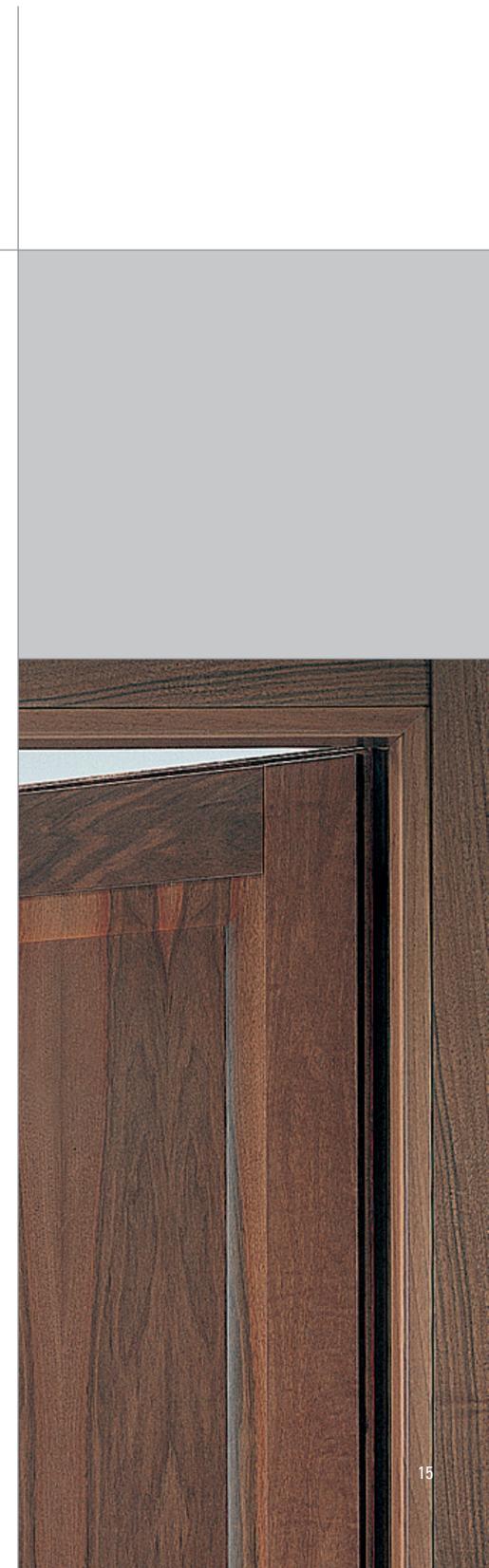
RU 7547

Ready to use UV polyacrylic basecoat for roller coater.

Featuring excellent transparency, wettability and sandability. The photoinitiator is of the non-yellowing type.

RU 7512

Ready to use UV acrylic basecoat for roller coater, featuring suitable viscosity for roller coater and reverse roller coater ensuring excellent transparency, wettability and sandability. The photoinitiator contained is of the non-yellowing type.





POLYESTER BASECOATS

RU 7424/13

White UV polyester basecoat for spray applications.

This product, thanks to its own nature, allows high application weights, providing high hiding power and excellent sandability. It requires the addition of the TH 2530 hardener at 5% to guarantee an excellent adhesion. The photoinitiator contained is of the non-yellowing type.

PF 6231

Polyester primer for curtain coater to be photoinitiated at 4% with RX 8214 or RX 8220.

Requiring the addition of paraffin wax for drying and sanding; usually used with the addition of XT 3320 at 2%.

We recommend however the percentage of XT 3320 to be decided depending on the temperature of the application device. Applied in a variable quantity ranging between 140 and 200 g/m² and dried with a UV tunnel with flash off and TL 03/05 lamps for the floating of the paraffin and 3-4 80 or 120 W/cm² Mercury lamps. Distinguished by excellent expansion, excellent reactivity and sandability. For systems ending with a UV gloss topcoat, we recommend sanding with 280-400-500 papers.

CURTAIN COATER WASHCOATS

RU 7602

Polyester washcoat for curtain coater application.

Suitable for systems on dark papers or where there is no need for resistance to yellowing. Photoinitiated at 4% with RX 8214, it is applied in variable quantities of 120-140 g/m². The main characteristic that distinguishes this washcoat from a wax polyester is the drying process. It dries with high pressure 80 or 120 W/cm² Mercury lamps. It is applied directly over the Filler for low-cost systems or over the sanded polyester for medium-quality systems. For systems ending with a UV gloss topcoat, we recommend sanding with 280-400-500 papers.

RU 7604

Polyester washcoat for curtain coater.

Suitable for systems on light papers or where there is a need for resistance to yellowing. Photoinitiated at 4% with RX 8214, it is applied in variable quantities of 120-140 g/m². The main characteristic that distinguishes this washcoat from a wax polyester is the drying process. This washcoat is applied on systems that with no long flash-off and low pressure TL lamps; after 15"-30", it dries with high pressure 80 or 120 W/cm² Mercury lamps. It is applied directly over the filler or over the sanded polyester for high-quality systems. For systems ending with a UV gloss topcoat, we recommend sanding with 280-400-500 papers.

RU 7606

Polyacrylic washcoat for curtain coater.

Suitable for systems on light papers or where there is a need for resistance to yellowing. Photoinitiated at 4% with RX 8214, it is applied in variable quantities of 120-140 g/m². The main characteristic that distinguishes this washcoat from the others is the drying process. This washcoat is applied on systems that have a flash-off, low pressure TL 03/05 lamps, and with high pressure 80 or 120W/cm² Mercury lamps. It is applied directly over the Filler or over the sanded polyester for high-quality systems. For systems ending with a UV gloss, we recommend sanding with 280-400-500 papers.

CURTAIN COATER GLOSS TOPCOATS

RL 8807

Polyester gloss topcoat for curtain coater, suitable for systems on dark papers.

Photoinitiated at 4% with RX 8214, it is applied in variable quantities of 120-140 g/m² and is dried with 3-4 minutes of flash off at an air temperature of 30-35°C + 3-4' TL 03/05 lamps + 3-4 high pressure 80-120 W/cm² Mercury lamps.

RL 8811

Polyester gloss topcoat for curtain coater, suitable for systems on light papers.

It is photoinitiated at 4% with RX 8214 or RX 8228 for non-yellowing systems. It is applied in variable quantities of 120-140 g/m² and dried with 3-4 minutes of flash off at an air temperature of 30-35°C + 3-4' TL 03/05 lamps + 3-4 High pressure 80-120 W/cm² Mercury lamps.

RL 8829

Polyester gloss topcoat for curtain coater with resistance to yellowing.

Ready to use product for systems on light papers. It is applied in variable quantities of 120-140 g/m² and dried with 3-4 minutes of flash off at an air temperature of 30-35°C + 3-4' TL 03/05 lamps + 3-4 high pressure 80-120W/cm² Mercury lamps.





VIOLET ADDITIVES

XT 3356 and XT 3358

It is a well-known fact that polyester coatings, while offering excellent quality at a low cost, are generally yellowish. When coating white or light coloured substrates, this affects the point of final white. For this reason, low percentages - max. 0.5-1% - of violet additives are used.

XT 3356 and XT 3358 are violet additives designed especially for products featuring ultraviolet drying. Offering excellent resistance to light and excellent compatibility with polyesters.

XT 3356 violet with a prevalently blue hue

XT 3358 violet with a prevalently red hue

They can be used together to obtain the required colour hue.

Keep in mind that while eliminating the yellow hue completely, they tend to grey slightly.

COATING SYSTEMS ON DARK PAPERS/FOILS

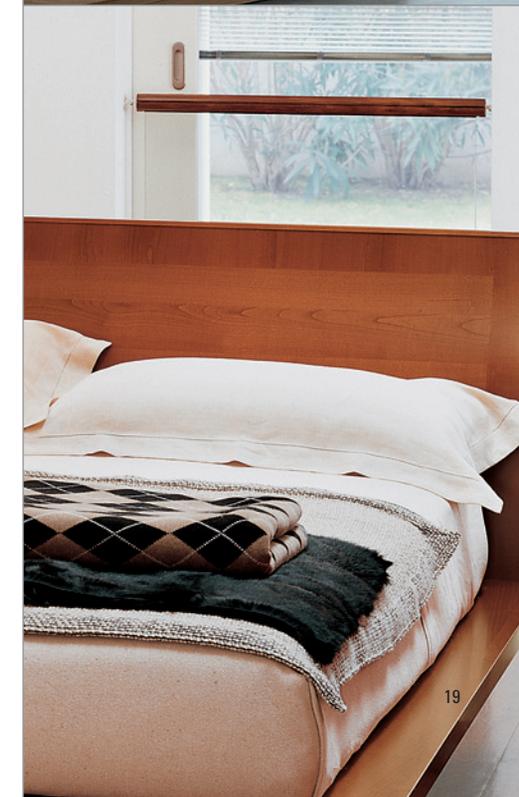
Impregnated papers TI 1214 or TR 5008 Sealers		Melamine papers TI 1286 Sealer	
LOW-COST SYSTEM A1	MEDIUM-QUALITY SYSTEM A2	HIGH-QUALITY SYSTEM A3	
Filler RU 7505	Filler RU 7505	Filler RU 7585	
Reverse filler RU 7547	Reverse filler RU 7547	Reverse filler RU 7547	
High gloss topcoat RL 8807 + 4% RX 8214	Washcoat RU 7602	Polyester PF 6231	
	High gloss topcoat RL 8807 + 4% RX 8214	Washcoat RU 7602	
		High gloss topcoat RL 8807 + 4% RX 8214	

COATING SYSTEMS ON LIGHT PAPERS/FOILS

Impregnated papers TI 1214 or TR 5008 Sealers		Melamine papers TI 1286 Sealer	
LOW-COST SYSTEM A4	MEDIUM-QUALITY SYSTEM A5	HIGH-QUALITY SYSTEM A6	
Filler RU 7585	Filler RU 7585	Filler RU 7585	
Reverse filler RU 7547	Reverse filler RU 7547	Reverse filler RU 7547	
High gloss topcoat RL 8811 + 4% RX 8214	Washcoat RU 7604	Polyester PF 6231	
	High gloss topcoat RL 8811 + 4% RX 8214	Washcoat RU 7602	
		High gloss topcoat RL 8829	

COATING SYSTEMS ON LIGHT PAPERS/FOILS HIGH RESISTANCE TO YELLOWING

Impregnated papers TI 1214 or TR 5008 Sealers	Melamine papers TI 1286 Sealer
SYSTEM A7	SYSTEM A8
Filler RU 7505	Filler RU 7585
Reverse filler RU 7547	Reverse filler RU 7547
Washcoat RU 7604	Polyester PF 6231
High gloss topcoat RL 8811 + 4% RX 8228	Washcoat RU 7606
	High gloss topcoat RL 8829



COATING SYSTEMS FOR PARQUET FLOORING

The products and cycles indicated can be applied to all kinds of wood used for parquet flooring.

RU 7518

Acrylic ready to use water-based primer.

It is applied in variable quantities of 15-20 g/m² and gelled with IR lamps for the water evaporation + 1 high pressure 80-120 W/cm² Mercury lamp. In the absence of IR lamps, we recommend a flash-off of at least 40" with ventilated air.

RU 7588

UV acrylic sandable ready to use filler featuring excellent machine stability.

Offering excellent reactivity and sandability. For drying, use 3-4 80-120 W/cm² lamps.

RU 7512

Ready-to-Use Acrylic UV Filler.

Designed with excellent transparency and stability when applied with a machine: suitable for performing closed-pore cycles on wood with very large pores, like Oak. It is typified by an excellent dilatation and expansion and a good polish.

RU 7577

UV acrylic filler for high resistance to abrasion. Ready to use.

Featuring high reactivity but it is not sandable. For gelling, use 1-2 80-120 W/cm² lamps. This filler should be used on specific ceramics rollers with Vulcolan blades. The special mineral substances contained have a high hardness capable of wearing away the steel of traditional metering rollers. Depending on the desired flow, it can be diluted by up to a maximum of 15% with DX 967 reactive thinner.

TI 1278

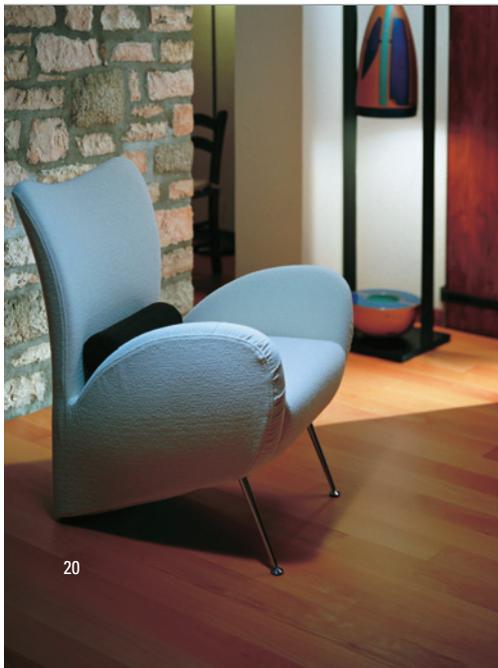
Universal sealer, suitable even for exotic woods.

It has to be applied by curtain coater or by spray and can be dried at room temperature or with hot air. With application weights of 80÷100 g/m², it can be over-applied without sanding after 90'÷120', or it should be dried for at least 4 hours and then sanded before being over-coated. It can be over-applied with UV basecoats. For spray application, we recommend it to be thinned with DT 40 between 10% and 30%.

RU 382

Clear acrylic basecoat, free from fillers, highly elastic and with excellent adhesion.

We recommend adding photoinitiator RX 8229 between 2% and 4%, depending on the degree of hardening required, and if necessary the additive RX 7105 (10%) to favour penetration and adhesion in the pore. It has the characteristic of "wetting"



perfectly even the most difficult pores and of maintaining adhesion even after hardening. This way, it works like a sealer to harden partially with the UV lamps and subsequently to over-apply with a conventional basecoat. Mention should be made that the introduction of RX 7105 causes a reduction in the pot-life.

RZ 81**

Range of UV acrylic topcoats studied especially for roller coater for parquet flooring.

Featuring excellent surface evenness, excellent hardness and good scratch-resistance. The final gloss level depends on the type of application, on the type of coating system and on the smoothing. With this type of topcoat, “grooved” non-slip parquet flooring can be achieved, working exclusively with the setting of the machine used for application.

RZ 89**

Range of UV topcoats for parquet flooring with excellent aesthetic performance levels, excellent surface hardness and good resistance to abrasion.

Featuring excellent spreading rate even with small quantities applied, good expansion. Suitable for a parquet topcoat with a smooth surface.

STANDARD SYSTEM B1	EXOTIC WOOD SYSTEM B2	HIGH ABRASION RESISTANCE SYSTEM B3
Sanding of bare wood with 120-220 papers	Sanding of bare wood with 120-220 papers	Sanding of bare wood with 120-220 papers
Primer RU 7518	Sealer for exotic woods TI 1278	Primer RU 7518
Sandable filler RU 7588 or RU 7512	Primer RU 382	Abrasion-resistant filler RU 7577 should be applied with rollers for ceramics
Mat topcoat RZ 89**	Sandable filler RU 7588	Sandable filler RU 7588 or RU 7512
	Mat topcoat RZ 89**	Topcoat RZ 81**



COATING SYSTEMS FOR DOORS

The products and cycles indicated can be applied to all kinds of wood used for doors: Walnut, Tanganyika Walnut, Cherry, Oak and Wenge.

RU 7588 (see page 20).

RU 381

UV acrylic primer for roller coater.

Featuring excellent transparency and reactivity. Good expansion. Excellent machine stability. Recommended application weights (g/m²): 20-60.

RU 385

UV roller coater primer.

Formulated with special resins, this product offers excellent reactivity, easy use and excellent transparency. This particular primer should be photoinitiated at 4% with RX 8214 and hardened at 4% with TH 2530, keeping in mind that the pot-life after catalysis does not exceed 48 hours; the recommended application weight is between 15 and 25 g/m² and 1 or 2 80 W/cm² lamps are necessary for gelling. RU 385 was designed to be used in open pore systems and for stained substrate with adhesion problems. The recommended coating system is as follows:

- Preparation of the coating with stains from the XM 8000 series with the addition of the special binder XR 3413 in the quantity of 15-30% max, hardened with TH 2530 at 4%;
N.B. use the blend within 24 hours;
- Roller application of the stain prepared;
- Drying with medium-wave IR lamps;
- Roller application of RU 385 prepared as described above;
- Gelling with high pressure Hg (mercury vapour) lamps;
- Application of the sandable filler.

The system described guarantees good adhesion on various woods.

For the adhesion check, we recommend to wait until the cross-linking of the products is complete, usually within 48 hours.



Given its particular formulation, RU 385 is capable of reducing the drop of subsequent coats, especially in systems with a gloss topcoat.

Range of lacquers in the same colour as the sample, whatever the nature.

With regard to the Dual Cure range mentioned in the coating systems for doors, these are products featuring mixed drying. This means high build levels can be obtained, with high qualitative characteristics and an aesthetic appearance that is identical to polyurethane products. These products are usually photoinitiated at 4% with photoinitiator for pigmented coatings RX 8275 and hardened with RX 7102, a isocyanate studied especially for these products.

RZ 85**

Pre-photoinitiated clear mat UV topcoat.

The product was designed for drying with the mixed system (DUAL CURE) to coat shutters, doors and flat surfaces of open pore furniture. For the application by curtain coater, we recommend viscosity to be kept constant by using DP 695. Featuring excellent wettability, good pore marking and softness; even matting; easy to use.

RZ 17**

Polyester topcoat for curtain coater with flash off and low pressure TL 03/05 lamps.

Featuring excellent surface hardness and scratch-resistance, excellent softness to the touch and aesthetic appearance.

RZ 74**

Polyester topcoat for curtain coater with flash off and low pressure TL 03/05 lamps.

Featuring excellent surface hardness and scratch-resistance, excellent softness to the touch and surface evenness.



STANDARD SYSTEM C1	SYSTEM WITH ACRYLIC BASECOATS C2	OPEN PORE SYSTEM C3
Sanding of bare wood with 120-220 papers		
Staining with XM 8000 series stains with the addition of a binder		
Primer RU 381	Primer RU 381	Primer RU 385 + 4% TH 2530
Sandable filler RU 7525	Sandable filler RU 7588	Primer RU 385
	Sanding with 240-320-400-500 papers	
	Stain retouch	
Mat topcoat RZ 17** or RZ 74**	Mat topcoat RZ 17** or RZ 74**	Mat topcoat RZ 85**

WENGE/DARK OAK SYSTEM C4
Sanding of bare wood with 120-220 papers
Primer RU 385 + 4% TH 2530 + stain
Primer RU 385
Sanding with 240-320-400-500 papers
Stain retouch
Mat topcoat RZ 85**

LACQUERED SYSTEM C5
Sanding of bare wood with 120-220 papers
Primer RU 381
Sandable filler RU 7588
Sanding with 240-320-400-500 papers
Dual cure mat topcoat lacquered with stain



COATING SYSTEMS FOR SHUTTERS

The products and cycles indicated can be applied to all kinds of wood used for shutters: Walnut, Tanganyika Walnut, Oak, Ash, Cherry, Chestnut, Maple, both on bare wood and resin stain.

RZ 7568

UV acrylic basecoat formulated with special resins for dual cure.

This mixed curing system provides the product with the typically versatile qualities of polyurethane products, excellent pore marking for open pore systems. Ease of use and excellent sandability and transparency.

RZ 87**

Clear mat UV self-sealer.

The product was designed with good filling properties, excellent drying, softness to the touch, for coating shutters and flat parts of furniture, both open and closed pore. Featuring excellent wettability for the support, good pore cut and softness. Good evenness of the matting agent. Easy to use.

RZ 91**

Mat topcoat that can be dried using the mixed UV-Polyurethane system designed for spray coating the shutters or flat parts of furniture.

This product therefore combines the drying speed and hardness that are typical of UV products with the ease of use, softness, even matting and perfect pore marking, which are all characteristics of polyurethane products.

The ideal use of RZ 91** is on shutters with an open pore topcoat, in which case it can be applied without distinction on both UV basecoats as well as on sanded polyurethane basecoats.

SYSTEM D1	SYSTEM D2	DECAPÉ SYSTEM D3
Sanding of bare wood with 120-220 papers	Sanding of bare wood with 120-220 papers	Sanding of bare wood with 120-220 papers
Spray basecoat RU 7568	Spray basecoat RU 7568	Dual Cure Spray basecoat stain colour
Spray topcoat RZ 87**	Spray topcoat RZ 91**	Brushable antique stain
		Spray topcoat RZ 87**

COATING SYSTEMS FOR SHUTTERS



COATING SYSTEMS FOR PROFILES AND BASEBOARDS

Systems performed with vacuumatic extruder.

RU 7565

UV acrylic basecoat for vacuumatic extruder.

Featuring excellent flow, sandability and reactivity. Free from volatile solvents, the solids content is $99 \pm 1\%$. The presence of mineral substances, designed to improve performance levels, does not affect the transparency. Featuring good adhesion on different types of wood and on papers.

RZ 70**

Clear UV acrylic topcoat with excellent flow and softness to the touch.

The absence of volatile solvents and the very low thixotropy ensure good stability and evenness of the film applied. We recommend not exceed 60°C in the pre-heater.



CLEAR SYSTEM E1	WHITE TRANSLUCENT SYSTEM E2	SYSTEM ON WHITE PAPER E3
Sanding of bare wood with 120-220 papers	Sanding of bare wood with 120-220 papers	Sanding with 120-220 papers
Basecoat RU 7565	Basecoat RU 7565	Basecoat RU 7565
Topcoat RZ 70**	Topcoat RZ 70**/13	Topcoat RZ 70**/13

STAIN COLOURED SYSTEM: OAK/WALNUT/CHERRY/DARK ROSEWOOD/STAINS IN GENERAL E4
Smoothing of bare wood with 120-220 papers
Basecoat RU 7565
Topcoat RZ 70** + 2-4% same coloured stain



09/2011

Z02A11UK



Sayerlack is a brand of
SHERWIN-WILLIAMS

Sherwin-Williams Italy S.r.l.
Export Department

Via del Fiffò 12 - 40065 Pianoro (BO) - Italy
tel. +39 051 770511 - fax +39 051 770528
export@sayerlack.it - www.sayerlack.com

Technical Service

tel. +39 051 770770 - fax+39 051 770521
customerservice@sayerlack.com

Sherwin-Williams UK Coatings Ltd.
A1 Business Park - Knottingley

West Yorkshire - WF11 0BU - England
tel. +44 (0) 1977 673363 - fax +44 (0) 1977 673521
ukinfo@sherwin.com - www.sayerlack.co.uk

Technical Service

tel. +39 051 770770 - fax+39 051 770521
customerservice@sayerlack.com

Sherwin-Williams Ireland Ltd.
53 Robinhood Industrial Estate

Dublin 22 - Ireland
tel. +353 1460 1445 - fax +353 1460 1449
irlinfo@sherwin.com - www.sayerlack.co.uk

Technical Service

tel. +39 051 770770 - fax+39 051 770521
customerservice@sayerlack.com

SAYERLACK, a brand of Sherwin-Williams
101 West Prospect Avenue - 920 Midland

Cleveland, OH 44115 - USA
tel. +1 800 524 5979 - fax +1 216 566 1293
info@sayerlack.com - www.sayerlack.com

Technical Service

tel. +39 051 770770 - fax+39 051 770521
customerservice@sayerlack.com

Sayerlack Singapore Pte. Ltd.
8, Admiralty Street

#07-08 Admirax, Singapore 757438
tel. +65 6763 7789 - fax +65 6763 0252
infoasia@sayerlack.com - www.sayerlack.com

Technical Service

tel. +39 051 770770 - fax +39 051 770521
customerservice@sayerlack.com