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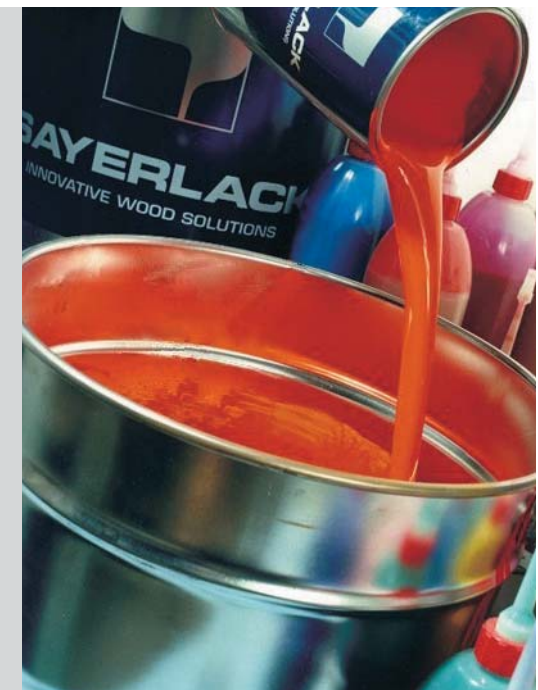
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WOOD COLOR PLUS

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INTRODUCTION TO THE TINTING AND COLOR MATCHING SYSTEM

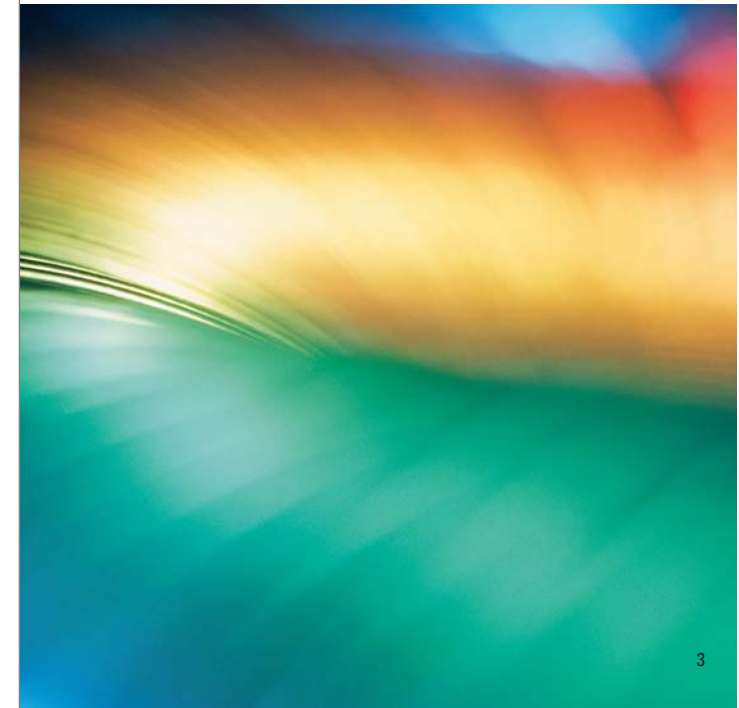
The new Wood Color Plus tinting and color matching system allows for simple, rapid and repeatable tinting of all types of wood finishes by dispensing colorants into a premixed tint base. This process is far more efficient and accurate when performed using a volumetric rather than a gravimetric dosing method.

The tint Bases, Colorants, Colorant dispenser, Software and Accessories that make up the Wood Plus system allow for the following:

- Formulation of accurate color matches using Corob World color matching software and the ORACOLOR or MINOLTA spectrophotometer. Spectrophotometers that are not connected to the system dispenser can also be used. In this case, you need only record the relevant proportions of tint bases and colorants, and then enter them manually in the computer that controls the color matching system when a new tint is formulated.
- Accurate re-matching of any color formula that the system has previously memorized.
- Using Corob World color matching software, formulas can be input manually by weight (grams) or volume (cubic centimeters (cc's)). However, since the system is geared to volume, it is recommended that products be dispensed in cubic centimeters rather than in grams.
- Extremely rapid output (a 25 liter can of coating can be mixed in 1-2 minutes using a preweighed Tint base).

The minimum dispensed colorant quantity is 0.077 cc. Therefore, if you intend to mix a relatively small amount of a color (e.g. one liter or less) for which 0.077 cc of Colorant or less would be required, it is best to prepare a larger amount instead so that the color can be matched accurately later on.

Virtually all colors can be matched perfectly when mixed in volumes of five liters or more. The aforementioned scenario will occur solely in the case of volumes of one liter or less, and then only with very few colors.



PRODUCTS

To prepare a pigmented coating, a Colorant is dispensed (using a suitable dispenser) into a Sayerlack Tint base (i.e. one that is designed to be mixed with a colorant).

Each type of finish has a dedicated Tint base.

The System consists of a sufficient number of products to allow the user to match virtually any color by combining a specific tint base and colorant.

PIGMENTED PASTES

A single type of general purpose Pigmented Pastes could be used to develop both Water-based and Solvent-based Coatings. This type of pigmented pastes would ensure maximum ease of use (only one type of paste for all applications) but to the detriment of the final result because the formulation methods for universally compatible pigmented pastes have a negative impact on the quality of the Pigmented Finishing Product.

Consequently, we have opted for a system that uses two different types of pigmented pastes: one for all water-based products and a second for all solvent-based products. This solution allows for the maximum level of simplicity and flexibility that is obtainable without undermining end product quality.

WATER-BASED PIGMENTED PASTES

- Ideal for exterior and interior finishes
- Contain no heavy metals or toxic/hazardous solvents
- The following 13 colors are available (in three-liter cans)



SOLVENT-BASED PIGMENTED PASTES

- Suitable for polyurethane, nitrocellulose (1), pre-catalyzed and acid finishes
- Contain no heavy metals or toxic/hazardous solvents
- The following 13 colors are available (in five-liter cans)



(1) Blue Paste TP 4199/06 should be used for nitrocellulose systems since TP 4199/14 is incompatible with some finishes of this type.

Tint bases are products that are suitable for mixing with colorants so as to obtain a tinted Finish.

In order to create a Color Matching System that can produce Finishes for the entire color spectrum, each type of finish has a dedicated tint base, i.e. a different tint base for Polyurethane, Nitrocellulose, Water-based Coatings and so on.

CONVERTERS

PREMIXED TINT BASES FOR SOLVENT BASED PRODUCTS

Product type: Polyurethane coatings

CONVERTER TYPE	NAME	CODE	GLOSS LEVEL	RECOMMENDED HARDENER
High gloss Neutral PU	COLORLUX	TL 0099/NN	High gloss	TH 735
High gloss White PU		TL 0099/BB		
Matt Neutral PU	COLORMAT	TZ 99**/NN	10, 25, 35, 60, 85 gloss	TH 720 for pastel colors TH 755 for strong colors
Matt Neutral PU		TZ 99**/BB		



Product type: Nitrocellulose coatings

CONVERTER TYPE	NAME	CODE	GLOSS LEVEL
Matt Neutral nitrocellulose	COLORNIT	SZ 99**/NN	10, 30, 60, 80 gloss
Matt White nitrocellulose		SZ 99**/BB	

Product type: Acid cured coatings

CONVERTER TYPE	NAME	CODE NO	GLOSS LEVEL	RECOMMENDED HARDENER
Neutral AC Topcoat	COLORURE	WZ 59**/NN	10, 30, 80 gloss	WH 1084
White AC Topcoat		WZ 59**/BB		

Product type: Pre-catalyzed topcoats

CONVERTER TYPE	NAME	CODE	GLOSS LEVEL
Neutral pre-cat Topcoat	COLORPRECAT	SZ 39**/NN	10, 30, 80 gloss
White pre-cat Topcoat		SZ 39**/BB	



PREMIXED CONVERTERS FOR WATER-BASED PRODUCTS

Product type: Water-based coatings for exterior spray applications

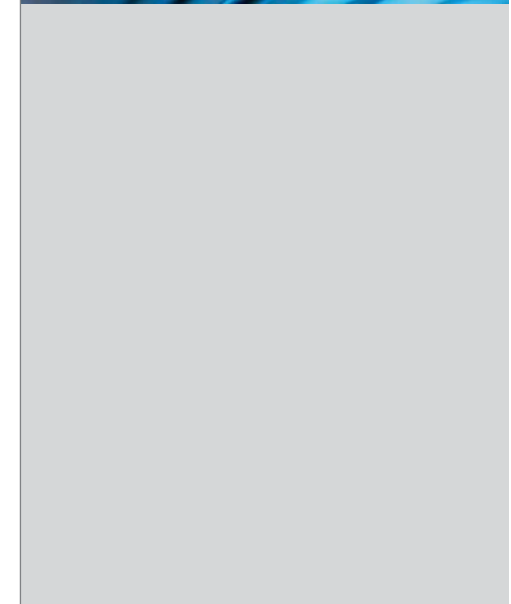
CONVERTER TYPE	NAME	CODE	GLOSS LEVEL
Matt Neutral water-based Topcoat	HYDROEST	XA 99**/NN	15, 30, 45, 60 gloss
Matt White water-based Topcoat		XA 99**/BB	

Product type: Water-based coatings for interiors

CONVERTER TYPE	NAME	CODE	GLOSS LEVEL
Matt Neutral water-based Topcoat	HYDROINT	AZ 99**/NN	15, 30, 50 gloss
Matt White water-based Topcoat		AZ 99**/BB	

Product type: Water-based coatings for exterior brush-on applications

CONVERTER TYPE	NAME	CODE	GLOSS LEVEL
Matt Neutral water-based Topcoat	HYDROBRUSH	PA 99**/NN	10, 60 gloss
Matt White water-based Topcoat		PA 99**/BB	

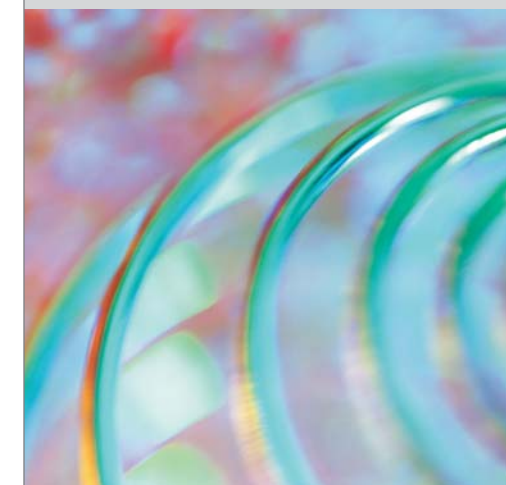


The proportions of converter to paste are predefined and differ for the various types of coatings (and thus for each converter) depending on the hiding power of the pastes and on the specific application method. For example, Interiors water-based pigmented topcoats require a higher proportion of paste than a waterbased thixotropic pigmented topcoat for Exteriors. The latter are applied in larger quantities and thus require proportionally less paste to obtain the same color saturation on the coated surface.

The proportions of converter to paste have been formulated with practical and cost considerations in mind. In as much as the pastes are the most costly component of the system, it would be counterproductive to add more than the amount needed to obtain a satisfactory finish.

THE FOLLOWING TABLE SHOWS THE PROPORTIONS OF CONVERTERS TO PASTES:

CONVERTER	Converter volume (in cc's, based on a total volume of 100 cc's)	Volume of paste to be added (in cc's)	Total volume of coating obtained (in cc's)
TL 0099/NN	80	20	100
TL 0099/BB	100	0,1-4	MAX 104
TZ 99**/NN	80	20	100
TZ 99**/BB	100	0,1-4	MAX 104
SZ 99**/NN	85	15	100
SZ 99**/BB	100	0,1-4	MAX 104
WZ 59**/NN	85	15	100
WZ 59**/BB	100	0,1-4	MAX 104
SZ 39**/NN	85	15	100
SZ 39**/BB	100	0,1-4	MAX 104
XA 99**/NN	94	6	100
XA 99**/BB	100	0,1-4	MAX 104
AZ 99**/NN	90	10	100
AZ 99**/BB	100	0,1-4	MAX 104
PA 99**/NN	94	6	100
PA 99**/BB	100	0,1-4	MAX 104



FORMULA DATABASE

The Wood Color Plus tinting and color matching system, which consists of a series of converters, pigmented pastes and dispensers, allows you to match rapidly and accurately any sample card color for all types of wood coatings.

In order to make the system optimally easy to use, the system also contains a database of predefined formulas that can be called up and reproduced instantaneously.

These colors come from the two most widely used color charts in the wood industry.

WOOD COLOR PLUS RAL

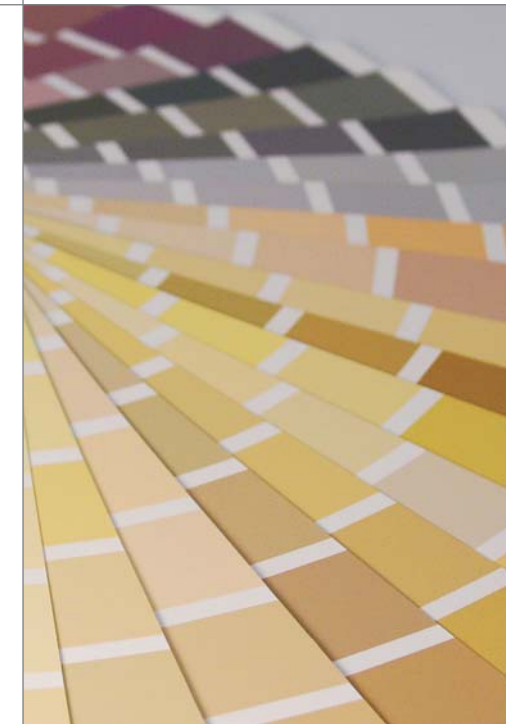


The RAL colors will eventually be formulated for all types of converters in the Wood Color system. This project will probably take quite some time to complete since several thousand colors are involved.

We are proceeding according to a scale of priorities and will initially supply a basic range of formulas that cover the most popular colors.

Predefined formulas for water-based coatings for exteriors and interiors and matt polyurethane coatings are currently available.

PRODUCT TYPES	COLOR CARDS
Matt polyurethanes	Wood Color Plus - RAL
Water-based for Interiors	Wood Color Plus - RAL
Water-based for Exteriors	Wood Color Plus - RAL



The database of predefined formulas will be updated continuously for all system users as new formulas become available, which means that the range of formulas will expand over time.

However, you can in any case match any color desired using the equipment and products described above, i.e. the spectrophotometer, converters and pigmented pastes.

The predefined formulas are associated with “help files” that provide information such as the following:

- 1** If the amount of finish being mixed is smaller than the minimum recommended amount, accurate and consistent matching of the color cannot be ensured. In fact, there are a few colors in the system that require only a minute amount of colorant. Inasmuch as the minimum dispensed colorant quantity is 0.077 cc, adding that amount (or less) would not produce a readily matchable color.
What happens in practice with a few colors is that mixing them in small amounts (e.g. one liter) involves adding an amount of pigmented paste that is nearly the same as the minimum dispensable quantity. Thus, when the user calls up one of these colors, the system also generates a message recommending that more than one liter of this color should be mixed.
- 2** Colors with low hiding power include an instruction to the user indicating that two coats should be applied.

Note: you can use the system without using the predefined formulas.

With the aid of the spectrophotometer, you can match any color whose proportions of converter and pigmented paste have been memorized in the system. If your spectrophotometer is not connected to the dispenser, you can save color formulas by entering their values in the computer that controls the dispenser.



EQUIPMENT NEEDED FOR THE SYSTEM

COLORANT DISPENSER CPS COLOR (COROB): the model used depends on your daily volumes of colors to be produced and the pack sizes you use.

COROB ORACOLOR OR MINOLTA SPECTROPHOTOMETER: the spectrophotometer is indispensable for matching color charts (without this tool only the aforementioned database formulas can be used). The Oracolor or Minolta units can be connected to the dispenser.

If you already have a spectrophotometer, you can also formulate new colors and then save them on the dispenser PC by manually inputting the relevant amounts of converters and pigmented pastes.

PC: the minimum technical requirements for the PC are as follows:

1200 Mhz Pentium IV CPU

256 MB RAM

AGP 4 X video card

2 serial ports

1 parallel port

1 USB port

24x CD-ROM drive

SVGA monitor

20 Gbyte hard drive

Windows XP/2000

COROB WORLD: this program allows for dispensation and formulation for users who wish to match custom/bespoke colors using the dispenser.

MIXER: this device is used for rapid mixing (a Cabo mixer is recommended).

PRINTER: optional.

CPS COLOR (COROB) also offers optional software (e.g. price, inventory and warehouse management; label program).



DISPENSERS

BANCO

This is a compact, versatile unit capable of handling small and medium cans and the occasional larger pail. Designed to deliver all the traditional Corob accuracy, repeatability and speed, it offers outstanding performance and graceful, modern styling at a reasonable price.

The Banco colorant dispenser is ideal for:

- Small and medium size hardware stores
- Small and medium size home stores
- Small paint stores

PC not included

Canister capacity:

32 x 2.5 liter cans or 20 x 2.5 liter cans / 6 x 5 liter cans



BANCO 32

Blue Line

Features and options

Dispensing system:
Volumetric, simultaneous
dispensing system.
Bellows pump.

Minimum dispensed quantity:

1/384 fl oz (0.077 cc) +/- 1%.

Circuits

Up to 32 circuits.
Canister capacity: 2.5 or 5 liters
for universal, water-based and
solvent-based colorants.
Automatic programmable colorant
agitation.

Canister transport

Manually adjustable shelf.
Lift-up automatic humidifier cap.

Dimensions and weight

Width: 950 mm
Depth: 690 mm (up to 16 circuits).
Depth: 849 mm (up to 32 circuits).
Height: 1300 mm (tabletop version:
750 mm).
Weight: 120 kg.

Power supply:

100-240 volt, 50/60 Hz.



MINIMODULA

Designed to deliver all the traditional Corob accuracy, repeatability and speed, this automatic color matching system combines outstanding performance with a graceful and ergonomic design.

The unit is designed for large-volume retailers who mainly handle small and medium sized canisters.

The rapid automatic turntable ensures that larger canisters can also be handled quickly and easily.

Configurable for up to 24 canisters, the Minimodula is ideal for:

- Home stores
- Medium size paint stores.

PC not included

Canister capacity

6 x 13 liters / 12 x 4 liters / 6 x 6 liters



Blue Line

Features and options

Dispensing system:
Volumetric, simultaneous
dispensing system, Gear pump.

Minimum dispensed amount:

1/384 fl oz (0.077 cc) +/- 1%.

Circuits

Up to 24 circuits.
Configurable canister capacities:
15, 6, 4, and 3 liters for universal,
water-based and solvent-based
colorants.

Automatic programmable
colorant agitation and
recirculation.

Canister transport

Rapid automatic turntable with
can recognition.
Lift-up automatic humidifier cap.

Dimensions and weight

Depends on canister size.

Power supply:

100-240 volt, 50/60 Hz.



MODULA 26

This flexible and modular automatic dispenser meets the most demanding requirements in terms of performance and productivity. It consists of up to 26 circuits of which a maximum of 16 can be placed externally (Modula TDF). It can handle up to 26 internal canisters of various sizes. External or internal dispensing modalities are available (respectively Modula TE and Modula TI). The Modula dispenser can be outfitted with a high-flow pump (Modula HF). Explosion proof models are available. The Modula 26 is a highly flexible solution for:

- Large home and paint stores
- Large paint stores
- Large distribution centers
- Paint depots

PC not included

Canister configurations for water-based products
14 x 6 liters / 8 x 9 liters / 3 x 15 litres / 1 x 20 liters



Red Line

Features and options

Dispensing system:
 Volumetric, simultaneous
 dispensing system.
 Gear pump.

Minimum dispensed amount:
 1/384 fl oz (0.077 cc) +/- 1%.

Circuits

Up to 26 circuits.
 Canister capacities: 20, 6, 4, and
 3 liters for universal, water-based
 and solvent-based colorants.
 Automatic programmable
 colorant agitation.

Canister transport

Rapid automatic turntable with
 can recognition and roller
 conveyor.
 Lift-up automatic humidifier cap.

Dimensions and weight

Depends on configurations.

Power supply:

100-240 volt, 50/60 Hz.

CPSCOLOR
 any colour you see

SAYERLACK
 INNOVATIVE WOOD SOLUTIONS

MODULA 32

This flexible and modular automatic dispenser meets the most demanding requirements in terms of performance and productivity. It consists of up to 32 circuits of which a maximum of 16 can be placed externally (Modula TDF). It can handle up to 32 internal canisters of various sizes. External or internal dispensing modalities are available (respectively, for Modula TE and Modula TI). The Modula 32 dispenser can be outfitted with a high-flow pump (Modula HF). Explosion proof models are available. The Modula 32 is a highly flexible solution for:

- Large home and paint stores
- Large paint stores
- Large distribution centers
- Paint depots

PC not included

Canister capacity for water-based products
14 x 6 liters / 14 x 9 liters / 3 x 15 litres / 1 x 20 liters



Red Line

Features and options

Dispensing system
 Volumetric, simultaneous
 dispensing system, Gear pump

Minimum dispensed amount:
 1/384 fl oz (0.077 cc) +/- 1%

Circuits

Up to 32 circuits.
 Canister configurations:
 20, 15, 8 and 6 liters for universal,
 water-based and solvent-based
 colorants.
 Automatic programmable
 colorant agitation.

Canister transport

Rapid automatic turntable with
 can recognition and roller
 conveyor.
 Lift-up automatic humidifier cap.

Dimensions and weight

Depends on configurations.

Power supply:

100-240 volt, 50/60 Hz.

CPSCOLOR
 any colour you see

SAYERLACK
 INNOVATIVE WOOD SOLUTIONS

SPECTROPHOTOMETERS

ORACOLOR

Oracolor, Corob's revolutionary new spectrophotometer, provides advanced technology in a compact design at an affordable price. Thanks to Oracolor's superb ergonomics and ease of operation, excellent results can be achieved by operators with no special skills. The laser pointer makes sample positioning a snap. Plus, Oracolor's modern design and attractive colors can enhance any setting. Oracolor is the ideal solution for:

- Hardware Stores
- Department Stores
- Home Centers
- Paint Stores



Key features and options

Integrating sphere: Ø 35 mm.
Reading geometry: d/8° sci.
Light source: halogen lamp.
Measuring area: Ø 10 mm.
Spectral range: 400-700 nm.
Interval: 10 nm.
Spectral analysis: holographic diffracting grating.
Photometric resolution: 0.01%.
Short-term repeatability: within 0.1 DE*
CIELAB (D65, 10 °)

Measurement conditions: white calibration tile measured 120 times at 15 second intervals.
Sample reading laser pointer.
Serial interface: RS 232.

Dimensions and weight:

Width: 125 mm.
Depth: 89 mm.
Height: 113 mm.
Weight: 720 g.

Power supply:

100-240 volt, 50/60 Hz.



MINOLTA

Minolta CM-3220d desk top spectrophotometer

This model is a compact box-type spectro, which is operated via Colour Composer. The spectro has been developed bearing point-of-sale use in mind. With only Power ON/OFF switch and the white calibration tile integrated into the spectro, the spectro is easy to use and it has an error-free handling.

Minolta CM-2500d portable spectrophotometer

Minolta CM-2500d is portable, single-handed operational, spectrophotometer. With only the measurement button and an exclusive "Navigation wheel" it is easy to control.

The "Navigation wheel" simplifies the navigation through the operation menu. The large display shows all the facts about the measured colour graphically or numerically.



Technical Data

Illumination/Viewing system:

D/8 (diffused illumination, 8 degree viewing angle), equipped with simultaneous measurement of SCI/SCE.

Sphere size:
CM-3220d: Ø 54 mm
CM-2500d: Ø 52 mm
Spectral separation device:
Diffraction grating.
Detector: Silicon photodiode array (dual 40 elements).
Wavelength range: 360 nm to 740 nm
Wavelength pitch: 10 nm.

Half bandwidth: Approx. 10 nm.
Light source 2 pulsed xenon lamps
Measurement/Illumination area
MAV: Ø 8 / Ø 11
Measurement time: Approx. 1.5 seconds.
Minimum measurement interval 3 seconds for SCI/SCE.
Reflectance range 0 to 175 %,
Display resolution: 0.01%.
Repeatability:
(When a white calibration plate is measured 20 times at 10 second intervals after white calibration)
(Standard deviation): Spectral: 0.1 % (360-380 nm with 0.2%)
Chromaticity Value: ΔE^*_{ab} within 0.04.

