

## Variocryl® Color VCC/Colour

### Product description

Variocryl® Color VCC/Colour is an innovative product of the latest generation of water-based paints. It can either be processed as one-pack or as two-pack product. Variocryl® Color VCC/Colour is very high-build, abrasion resistant and allows the preparation of almost all colours desired, such as RAL, Sikkens, NCS, etc. in the perfect colour mixing system. By adding PUR-Wasserlackhärter PWH 3200, the chemical resistance according to DIN 68861 is increased from 1C to 1B. In addition, hardness, scratch resistance, PVC resistance and the resistance to cream and grease is clearly improved so that a final clear varnish coat is not required. The application of a clear varnish coat with Variocryl® VC or Duocryl 2K-PUR Top-Klarlack is generally possible and recommended for highly demanding applications.

### Range of application

Variocryl® Color VCC/Colour is suitable for VOC-conforming painting of interior wood and wood-based material. As one-pack product it is suitable for many normally stressed paint applications in living rooms and bedrooms. As two-pack product it is also suitable for paint applications in wet-process rooms such as bathroom and kitchen as well as for applications, which require higher chemical and mechanical resistance.

### Surfaces

All common woods and wood materials.

Hardboard and MDF boards in wet cells, as well as some woods rich in resin or other ingredients, such as pine, should first be primed with Duofill 2K Isolierfüller. Please see the separate Technical Data Sheet.

### Preparation

Carefully sand and dust the surfaces treated with Duofill 2K Isolierfüller. Boards with a primer foil or with a smooth foil coating must be carefully sanded before being painted with Variocryl® Color VCC/Colour. For obtaining optimum adherence and, optionally, good paintability with Variocryl® VC or Duocryl 2K-PUR Top-Klarlack, we recommend applying the hardened product.

### Gloss levels

Product number	VCC/Colour + 10 % PWH 3200	VCC/Colour
Gloss level	silk	silk
Measuring value accord. to DIN 67530 at 60°	approx. 35	approx. 30

### Hardening (with two-pack processing)

Hardener:	PUR Wasserlackhärter PWH 3200
Mixing ratio (varnish/hardener)	10 : 1
Pot life	approx. 4 hours at 20°C, 65% rel. humidity

Caution: The hardener must be intensively and immediately mixed with the product.

When the hardener is added, the viscosity is increased. After the hardener has been added and thoroughly mixed, Variocryl® Optimizer or tap water must be added to adjust the product to painting viscosity.

To achieve the optimum varnishing result do not exceed the pot life.

### Thinner

Variocryl® Color VCC/Colour	Up to 10 % of Variocryl® Optimizer VO or tap water
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## Application

### Shake or stir well before use.

When changing the spraying equipment from solvent-based products to water-based paints, the spraying equipment must be first flushed with Zweihorn® Universalreiniger UR and water. Variocryl® Color VCC/Colour can be processed unhardened or hardened as multi-coat varnish. For the improvement of the mechanical and chemical resistance of the paint we recommend processing of Variocryl® Color VCC/Colour hardened as two-pack variant or to apply a final coat with a Zweihorn® two-pack water-based varnish after the prescribed drying time. For thinning we recommend using Variocryl® Optimizer instead of tap water. By doing so, the surface elegance, especially in the area of edges and profiles, is improved. Another advantage is that the drying time of Variocryl® Color VCC/Colour is shortened.

Processing conditions: 15-25°C temperature and 30-65% relative humidity.

## Application methods

	<b>Spraying</b>	
	High/Low pressure	Airless / Airmix
Spray pressure (bar)	1.5 - 3	110 - 130
Nozzle size (mm)	1.6 - 1.8	0.23 - 0.28
Thinner to be added (%)	5 - 10	0 - 10
Processing viscosity DIN 4 mm (sec.)	approx. 30	approx. 50
Coverage per application (g/m²)	100 - 120	100 - 120
Yield incl. overspray (m²/l)	6 - 7	6 - 7

## Drying time (at room temperature 20°C and 65% relative humidity)

dust dry	touch dry	sandable/paintable	ready for transport
approx. 40 min.	approx. 1 hour	approx. 4 hours	overnight

The drying time strongly depends on the quantity applied, the temperature, air humidity and air movement. High application quantity and air humidity has a negative effect on the drying process. Higher temperature and air blast has a positive effect. If all parameters such as layer thickness, drying temperature, air humidity, etc. are met, the coated surfaces can be stacked after drying overnight (14 hours min.). In order to avoid blocking during stacking, we recommend using PE foam foil as intermediate layer.

## Post-treatment

After the indicated drying time, Variocryl® Color VCC/Colour can be overpainted with Zweihorn® water-based varnishes such as Duocryl 2K-PUR Top-Wasserklarlack DC-T or Variocryl® Wasserklarlack VC. We recommend overpainting within 4 to 24 hours without intermediate sanding. Overvarnishing too early may cause surface failures. If overvarnishing can only be done later, the painted surfaces must be slightly sanded (400 grit paper) before the varnish is applied. After sanding and dust removal, the surface can be overvarnished with the same material at any time.

## Product data

Batch sizes VCC	
Blue, burgundy, yellow, green, orange, ochre, oxide red, red, black	3 kg
White RAL9010	3 kg, 25 kg
Viscosity at delivery DIN 4 mm	60 - 90 seconds, depending on the colour
Shelf life in unopened original batches	approx. 1 year
Batch sizes Hardener PWH 3200	0.5 l, 2.5 l
Batch size Variocryl® Optimizer	1 l

## VOC directive

EC limit value for this product (Cat. A/d): 150 g/l (2007) / 130 g/l (2010)

The unhardened product contains max. 60 g/l VOC.

The hardened product contains max. 98 g/l VOC.

Further information can be obtained from the label and the Safety Data Sheet according to 91/155/EWG, which can be downloaded from our Internet site "www.zweihorn.com" or requested from us.

### Special notes

- Only use working equipment made from non-rusting material.
- After use, immediately clean the working equipment with water.
- When changing from water-based varnish to solvent containing systems thoroughly rinse the spraying equipment with water and then with Universalreiniger UR.
- As a two-pack product, Variocryl® Color VCC/Colour is PVC resistant. Due to the huge number of plastic materials being on the market, softening of the paint coat in case of permanent contact can never be excluded. Take care not to use unsuitable profile packings. Please follow the instructions of the profile manufacturer.
- Adding hardener mainly and clearly improves chemical resistance according to DIN 68861, PVC resistance and the resistance to cream and grease. In order to improve the resistance, Variocryl® Color VCC/Colour can be overvarnished with a Zweihorn® two-pack water-based varnish, such as Duocryl 2K-PUR Top-Wasserklarlack DC-T or Variocryl® Wasserklarlack VC.
- When directly varnishing coated boards such as primer foils, melamine resin coats or HPL with Variocryl® Color VCC/Colour we recommend using the material as a two-pack variant after careful sanding of the surfaces in order to obtain optimum adherence.
- PUR hardeners are affected by moisture. Always store the hardener in tightly closed batches.
- When using PUR hardeners always follow the safety instructions on the label.
- PUR hardener may be stored in unopened original batches and at a cool and dry place for a maximum of 1 year approx
- Do not process under 15°C.
- Material is frost sensitive - do not store and transport under 5°C.
- All processing parameters apply to normal conditions (20°C, 65% relative humidity of air). Deviations may cause deterioration of the results.
- Always keep the containers closed; protect the contents against drying-out.
- In case of skinning, remove the skin through filtration prior to the application (e.g. through a nylon mesh).
- Caution: The product must not be drained into the sewage system.

### Meets the following test standards

- VCC/Colour hardened with 10 % PWH 3200 as two-pack product:  
Chemical exposure of furniture surfaces according to DIN 68861/1B.
- VCC/Colour unhardened as one-pack product:  
Chemical exposure of furniture surfaces according to DIN 68861/1C
- EN 71-3 Free from soluble heavy metals (CE approval)
- DIN 53160, Part 1 and Part 2 Saliva and sweat proof (CE approval)
- Flame resistant according to DIN 4102/B1
- Requirements to the surfaces of kitchen furniture according to DIN 68930 regarding the resistance under changing climatic conditions (only if hardened with Duofill 2K Isolierfüller DF)

Please follow the relevant test certificates for our products, which can be downloaded from our Internet site "[www.zweihorn.com](http://www.zweihorn.com)" or requested from us.

Zweihorn® products are produced for the professional user, who has a basic knowledge of the use and the application of stains, varnishes, glazes and glues. The user information for our qualities given in the leaflets should be regarded as non-binding recommendations. They are based on our test series and experiences and should facilitate and promote the work of our clients. Any adjustment to the individual working conditions, which might be possible, lies within your responsibility. If in any doubt, our material experts as well as our application and laboratory technicians will try to help you as best as they can. We guarantee of course the impeccable quality of our products based on our General Sales and Delivery Conditions. The use of the final product lies entirely within the responsibility of the buyer. As long as we have not guaranteed in writing specific characteristics and suitability of the products for a contractually agreed purpose, any advice or information given regarding the application, even if the advice or information is given to the best of our knowledge, will be non-binding. Nor does it relieve the buyer, either from his own inspection, and if need be through a trial processing. Furthermore, we are only liable according to our General Conditions for advice either given or rejected, which does not refer to the characteristics and use of the delivered product.

Applicable is the current Technical Data Sheet, which can be downloaded under [www.zweihorn.com](http://www.zweihorn.com). Previous technical data sheets are voided with the issue of a new version.

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