



Product description

Variocryl® Wasserklarlack VC is an innovative product of the latest generation of water-based varnishes. It can either be processed as one-pack or as two-pack product. Variocryl® Wasserklarlack VC has very good grain emphasizing properties, which looks natural in the colour, is very high-build, abrasion resistant and has good chemical resistance properties. Variocryl® Wasserklarlack VC is extremely light-fast and can be used for overpainting of Variocryl® Color VCC/colour. Adding PUR-Wasserlackhärter PWH 3200 clearly improves hardness, scratch resistance, PVC resistance and the resistance to cream and grease.

Range of application

Variocryl® Wasserklarlack is suitable for open- and closed-pore, VOC-conforming varnishing 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 varnish applications in wet-process rooms such as bathroom and kitchen, for stairs in the living area as well as for applications, which require higher chemical and mechanical resistance.

Surfaces

All common wood and wood materials. Hardboard and MDF boards in wet-process rooms, as well as wood rich in resin or other ingredients, such as pine, teak or wenge, must first be primed with Duocryl 2K-PUR Wasser Isoliergrund DC-I. Please see the separate Technical Data Sheet. All water-based Zweihorn® paints and all Zweihorn® stains with the exception of wax stain can be used.

Preparation

For raw wood surfaces a graduated sanding must be carried out (120/150/ possibly 180 grit paper). Dust well. The finer the wood sanding, the slighter the roughening. In the case of strongly roughening wood previous watering is recommended. Do not sand stained surfaces.

Gloss levels				
Product number	VC 8	VC 9	VC 0	VC TM
Gloss level	silk	silk-lustre	matt	deep matt
Meas. value acc. to DIN 67530 at 60°	40	20	10	5

Hardening (with two-pack processing)	
Hardener	PUR-Wasserlackhärter PWH 3200
Mixing ratio (lacquer/hardener)	10:1
Pot life	approx. 4 h at 20 °C, 65 % relative humidity of air

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, tap water must be added to adjust the product to spraying viscosity. To achieve the optimum varnishing result, do not exceed the pot life.

Thinner

Variocryl® VC without hardener added, one-pack: Thinning not required. Variocryl® VC with hardener added, two-pack: 10 % Variocryl® Optimizer or tap water. Only after being mixed thoroughly with the hardener!

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® Wasserklarlack VC can be processed unhardened or hardened as multi-coat varnish. As a primer coat, Variocryl® Wasserklarlack should be applied richly in order to achieve optimum grain emphasis. After drying of the primer coat carry out intermediate sanding with a sanding paper suitable for water-based paint (e.g. 280 grit paper) and dust well. Further coating of the sanded primer coat can be made as one-pack or two-pack process. Spots sanded to extensive should be coated with the same material again in order to achieve uniform grain emphasis. For achieving higher resistance it is sufficient to apply a top coat of hardened Variocryl® Wasserklarlack VC. 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. The drying time of Variocryl® VC is shortened, too. Processing conditions: 15-25 °C temperature and 30-65 % relative humidity of air.

Application methods	Spraying	
	High/Low pressure	Airless/Airmix
Spray pressure (bar)	1.5-3.0	110-130
Nozzle size (mm)	1.8-2.0	0.25-0.33
Water added (%) with VC 1K	-	-
Water added (%) with VC 2K	10	10
Processing viscosity DIN 4 mm (sec.)	approx. 40	approx. 40
Coverage per application (g/m²)	100-140	100-140
Yield incl. overspray (m²/l)	5-7	5-7

Drying time (at 20 °C room temperature, 65 % relative humidity of air)	
dust-dry	approx. 40 min.
touch-dry	approx. 1 h
sandable	approx. 3-4 h
transportable	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.

Aftertreatment

After prior sanding and dust removal, Variocryl® Wasserklarlack VC can be overpainted any time with the same material, hardened or unhardened.

Product data	
Batch sizes VC	5 l, 20 l
Batch sizes Härter PWH 3200	0.5 l, 2.5 l
Viscosity at delivery DIN 4 mm	approx. 40 sec.
Shelf life in unopened original batches	approx. 1 year

VOC directive

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

The unhardened product contains max. 72 g/l VOC.
The hardened product contains max. 86 g/l VOC.

For further information see the label and the Safety Data Sheet according to 91/155/EWG, which you can find on our website www.zweihorn.com or which you can request 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 hardened two-pack product, Variocryl® Wasserklarlack VC 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 PVC resistance and the resistance to cream and grease. In case of doubt, at least the final coat should be made with hardened Variocryl® Wasserklarlack VC.
- ▶ PUR hardeners are sensitive to moisture. Always store in tightly sealed containers.
- ▶ Pay attention to the Safety Instruction appearing on the label whenever you handle PUR hardeners.
- ▶ PUR hardeners should be stored under cool and dry conditions for not longer than approx. one year in the closed original batch.
- ▶ Variocryl® Wasserklarlack VC can also be used on bleached wood (peroxide-resistant).
- ▶ Some water stains might "bleed out" during coating with water-based varnishes. For that reason, always make a staining and varnishing test.
- ▶ 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 dehydration.
- ▶ 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:



Chemical exposure of furniture surfaces according to DIN 68861/1B (Also the chemical resistance is improved by adding hardener, but the product is still in group 1B)



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 on B1-tested particle board, also veneered; VC-TM applied for



Requirements to the surfaces of kitchen furniture according to DIN 68930 regarding the resistance under changing climatic conditions (only if hardened)

Please follow the relevant test certificates for our products, which can be downloaded from our website "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 Chapter 1 of 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. Previous technical data sheets are voided with the issue of a new version.

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