

Crystallit® 2K-PUR-Hochglanzklarlack CL-H



Product description

Crystallit® 2K-PUR Hochglanzklarlack CL-H is a highly transparent, extremely solid-rich two-pack polyurethane varnish lack for open and closed pore high-glossy coatings of wood materials of all kind. Crystallit® 2K-PUR Hochglanzklarlack CL-H is extremely lightfast and can also be used as coating varnish on Wigranit® Novacolor paint.

Range of application

Crystallit® 2K-PUR Hochglanzklarlack CL-H is only suitable for the finishing of interior furniture surfaces. Especially for noble, high-gloss furniture surfaces in areas such as kitchens and bathrooms, restaurants, schools, discoteques, offices, etc. It is also suitable for interior fittings in spaces other than buildings, e.g. campers, caravans, railway carriages, airplanes, etc.

Surfaces

All common wood and wood materials. Hardboard and MDF boards in moisture-proof applications, as well as some woods rich in resin or other ingredients (e.g. some pine, teak or wenge types) should first be insulated with Plastiklack S 7000. All Zweihorn® stains (with the exception of wax stain) and Wigranit® Novacolor paint can be used.

Preparation

Sand uncoated solid wood and veneered wood (graduated sanding 120/180/possibly 220-grit paper) and carefully remove the sanding dust. Do not sand stained surfaces. Prime richly 1 – 2 times with Diador® 2K-PUR Füllgrund DD-F or Crystallit® 2K-PUR Füllgrund CL-F and, after sufficient drying time, slightly sand with 280-grit paper and carefully remove the sanding dust. Surfaces coated with Wigranit® Novacolor WNC/colour can be overpainted with Crystallit® 2K-PUR Hochglanzklarlack CL-H after a drying time of approx. 30 minutes to 8 hours without intermediate sanding. If overpainting is made later, e.g. overnight, the dried paint surface must be slightly sanded (600-grit paper). Carefully dust the surface before Crystallit® 2K-PUR Hochglanzklarlack CL-H is applied. We recommend using dust-attracting cloth. Please see the respective Technical Data Sheets for the above-mentioned products.

Gloss levels	
Product number	CL-H
Gloss level	high-gloss
Measuring value acc. to DIN 67530 at 60°	approx. 92

Hardening	
Hardener	PUR-Härter 5085
Mixing ratio (lacquer/hardener)	2:1
Pot life	approx. 2 h at 20 °C, 65 % relative humidity of air

Thinner

PUR-Verdünner S 9004 (normal drying)
PUR-Verdünner S 9029 (slow drying)

Application

Shake or stir well before use!

The mixture of Crystallit® 2K-PUR Hochglanzklarlack CL-H and PUR-Härter 5085 is ready to use and is applied with the spray gun after thoroughly sanding and dusting the surface. This should be done in a possibly dust free environment. During the drying time of the varnish dust penetration must be avoided. In order to improve the high gloss effect, the varnished surfaces can be depickled after overnight drying with 1200-grit paper and then coated a second time with Crystallit® 2K-PUR Hochglanzklarlack CL-H. In case this should be done later, the entire surface must be sanded with 1200 grit paper and thoroughly dusted.

Application methods	Spraying	
	High/Low pressure	Airless/Airmix
Spray pressure (bar)	1.5-3.0	110-130
Nozzle size (mm)	1.6-2.0	0.23-0.28
Thinner added (%)	–	–
Processing viscosity DIN 4 mm (sec.)	approx. 17	approx. 17
Coverage per application (g/m ²)	80-120	80-120
Yield (m ² /l)	6-10	6-10

Drying time (at 20°C room temperature, 65 % relative humidity of air)	
dust-dry	approx. 30 min.
touch-dry	approx. 2 h
sandable	approx. 14 h
transportable	overnight

Aftertreatment

After a hardening time of three days the high gloss coating can be fine-sanded and polished. For the polishing sequence with Zweihorn® Hochglanz-Schleifpaste HSP and Hochglanz-Polierpaste HPP please see the separate Technical Data Sheet (also see '5 steps to the perfect high-gloss surface with CL-H').

Product data	
Batch sizes CL-H	5 l, 25 l
Batch sizes Härter PUR 5085	0.5 l, 2.5 l, 12.5 l
Viscosity at delivery DIN 4 mm	approx. 17 sec.
Shelf life in unopened original batches	approx. 2 years

For further information see 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

- ▶ For a brilliant high-gloss effect it is important that the surface has been carefully prepared and that there is absolutely no dust during the application and the curing of the high-gloss varnish.
- ▶ Whenever polyurethane (PUR) material is to be applied as a coating, sand surface and remove dust thoroughly just before commencing with further treatment to guarantee perfect bonding.
- ▶ Do not process and dry PUR varnishes under 15°C.
- ▶ 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.
- ▶ Crystallit® 2K-PUR-Hochglanzklarlack CL-H can also be used on bleached wood (peroxide-resistant).
- ▶ If higher UV resistance is required, Spezial Sunblocker SB can be added to the varnish. See the Technical Data Sheet for Spezial Sunblocker SB.

Meets the following test standards:

- Chemical exposure of furniture surfaces according to DIN 68861/1B
- EN 71-3 Free from soluble heavy metals (CE approval)
- DIN 53160. Part 1 and Part 2 Saliva and sweat proof (CE approval)
- Approved for consumer food applications according to § 31, Chapter 1, Regulations regarding consumer goods for food contact applications
- Flame resistant according to DIN 4102/B1 on flame resistant, B1-tested particle board, also veneered
- DIN 5510 Part 2 - Fire prevention in railway applications
- Flame resistant according to IMO-Resolution A 653, USCG approval
- TÜV-Toxproof – The label for low-emission paints

Please follow the relevant test certificates for our products, which can be downloaded from our website "www.zweihorn.com" or requested from us.

Five steps to the perfect high-gloss surface with Crystallit® 2K-PUR Hochglanzklarlack CL-H

1. Priming with 2K-PUR Füllgrund DD-F/CL-F

Priming with the products Diadur® Füllgrund DD-F or Crystallit® Füllgrund CL-F is extremely high-build, slightly sandable and the most important prerequisite for a high-gloss composition. Depending on the requirements and surface it is applied several times. Before any further treatment, drying over night is recommended. Longer drying, e.g. three days, essentially improves the stability. In the case of MDF for moisture-proof applications, a special preparation with Plastiklack S 7000 is required. However, should the surface be varnished with Wigranit® Novacolor WNC/colour, priming with Wigranit® 2K-MDF Isolier-füller IF or 2K-PUR Füller WIG/FILL must be carried out.

2. Varnishing with Crystallit® 2K-PUR Hochglanzklarlack CL-H

Varnish the well prepared surface every 14 hours three times with slight intermediate sanding or partial "depickling" (1200 grit paper). The three-fold application makes sure that during the "removing process" (sanding/buffing) a sufficient dry layer is provided.

3. Polishing preparations

After a hardening time of three days, dry and wet sanding is possible. Important herewith is a very good eccentric sander with excellent dust vacuuming abilities and the generous use of fresh sanding paper (600 – 1200 grit). In case of total surface application never sand by hand.

4. Polishing with Hochglanz Schleifpaste HSP

Apply the Hochglanz Schleifpaste HSP at any point on the varnished surface. The consumption is subject to the surface properties and the machine used. By spraying some tap water onto the surface during polishing, the surface can be cooled down and the Hochglanz Schleifpaste can be diluted. We differentiate between two application techniques:

▶ Polishing by hand with angular polishing machines:

When using lambskin pads, the distribution of Hochglanz Schleifpaste HSP with the necessary pressure and steady back and forth movements results in the first gloss.

▶ Polishing on belt machines or buffing machines:

Apply Hochglanz Schleifpaste HSP onto the surface to be treated or put it in front of the buffing roller of a buffing machine. Distribution and polishing are automatic via felt/pile belts or buffing rollers.

Up to 96 % of the obtainable gloss can be obtained with Hochglanz-Schleifpaste HSP. For many customer requirements this is already sufficient. For high-quality highly polished surfaces, however, we recommend carrying out step 5. This step results in the ultimate gloss, so that the naked eye cannot recognize the

difference between this and an unpolished high-gloss surface. Please note, that most of the polishing time is used for Hochglanz-Schleifpaste HSP, because it is more abrasive and smallest scratches can be removed by polishing. Up to 96 % of the obtainable gloss can be obtained with Hochglanz-Schleifpaste HSP. For many customer requirements this is already sufficient. For high-quality highly polished surfaces, however, we recommend carrying out step 5. This step results in the ultimate gloss, so that the naked eye cannot recognize the difference between this and an unpolished high-gloss surface. Please note, that most of the polishing time is used for Hochglanz-Schleifpaste HSP, because it is more abrasive and smallest scratches can be removed by polishing.

Please see the separate Technical Data Sheet for Spezial Hochglanz Schleifpaste HSP!

5. Polishing with Hochglanz-Polierpaste HPP

Apply the Hochglanz-Polierpaste HPP at any point onto the varnished surface. The consumption is subject to the surface properties and the machine used. By spraying some tap water onto the surface during polishing, the surface can be cooled down and the Hochglanz Polierpaste can be diluted. We differentiate between two application techniques:

▶ Polishing by hand with angular polishing machines:

Hochglanz-Polierpaste HPP is distributed with a foam waffle pad (orange) on the surface to be polished with the necessary pressure and steady back and forth movements. If the surface becomes too dry, new paste must be applied in order to avoid that the surface becomes too hot. With Hochglanz-Polierpaste you can obtain roughly the gloss of an unpolished high-gloss surface. But only if careful sanding was made and when HSP was used for first polishing.

▶ Polishing on belt machines or buffing machines:

Apply Hochglanz-Polierpaste HPP onto the surface to be treated or put it in front of the buffing roller of a buffing machine. Distribution and polishing is made automatically via felt belts or buffing rollers.

Please see the separate Technical Data Sheet for Hochglanz-Polierpaste HPP!

In order to clean the surface from remaining polish particles, just wipe it with a microfiber cloth or apply small amounts of Hochglanzpolitur 10099 onto the surface. It removes not only the existing residues of Hochglanz-Polierpaste HPP, but it also results in a more brilliant surface. After drying, treat the surface with a polishing sponge until it looks crystal clear. Repolishing with Spezial Abpolierwasser S 68 is possible (Caution: contains silicone!). By doing so, the surface becomes more scratch resistant.

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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