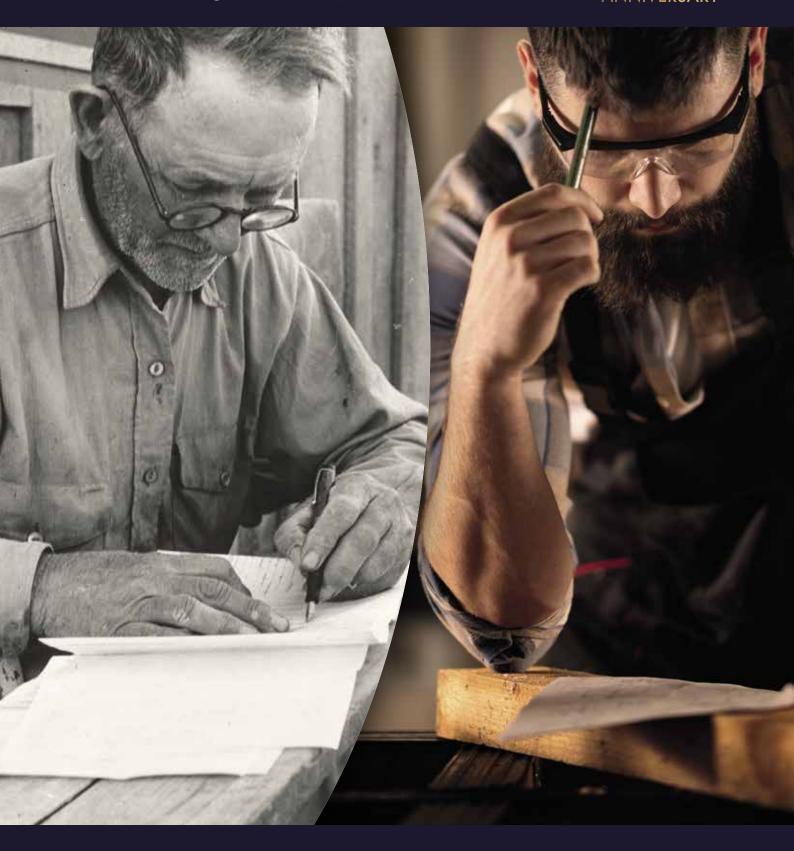




Times change. Quality endures.







Zweihorn® – The brand for Professionals

Imprint

The contents of this brochure have been carefully prepared. However, we cannot guarantee that the contents are fully accurate, complete and up-to-date. Current information on our products, such as technical data sheets or safety data sheets, is available on the internet at www.zweihorn.com. Any colour deviations are due to printing requirements.

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The Zweihorn® brand has belonged to the AkzoNobel group since 2005. AkzoNobel is a leading company in the colours and paints industry, and a major manufacturer of special-purpose chemicals. AkzoNobel draws on its many years of experience to supply industry customers and consumers worldwide with innovative products and sustainable technologies that have been developed to meet the growing requirements of our rapidly changing world. The product portfolio includes brands such as Sikkens Wood Coatings and Zweihorn®, which are both leaders in their respective markets.

The Zweihorn® brand stands for high-quality stains, paints and natural products for professional interior wood surface finishing. Our aspiration goes far beyond the brilliant surface and the beauty of the wood: in research and development we

value safety and ecological aspects the highest of all. We try to meet the demands of tomorrow today with our products. They are therefore totally aimed towards the needs of the users and coordinated with one another as well as simplifying and accelerating the work processes.

The concept made up of innovative, high-quality products, which are specially developed for the professional processor, along with a varied range of services and consultations as well as a close-knit dealer network make us unique on the market. That's why Zweihorn® is the brand for professionals.

Product Overview 2022, Effective 01-09-2022



The Horn brothers found the "Horn & Horn" company in Cologne, trading in oils and greases.

> The company partners with a group of chemists and starts producing stains, delustrants and polishes.

The Horn brothers sell the company to Cologne-based manufacturer Eugen Wolff.

The company is officially renamed Zweihorn Werk GmbH. The new name reflects the company's focus on the future and pride in its past.

The factory is destroyed by bombing. A new HQ is established in the Braunsfeld district of Cologne.

1960

Zweihorn is acquired by German paint company Hermann Wiederhold Lackfabriken, based in Hilden, near Düsseldorf. Production is consolidated at one site.

1976

Wiederhold Lackfabriken and Zweihorn are acquired by ICI.

1984

Zweihorn produces Wigranit, the first coloured paint for wood coatings, bringing greater colour freedom and flexibility to the market.

1988

The company launches the first coloured paint mixing system for wood finishing, increasing efficiency and simplifying the mixing process.

Zweihorn develops a spectrophotometer for colour shade determination, the first computer aided measuring device for wood coatings.

Zweihorn develops the first filler without isolation directly on MDF.

Follow our journey delivering quality, innovation and support through the years.

A key innovation Zweihorn introduced to the market.

A defining milestone in the history of Zweihorn.



The first water-based insulating filler is launched: Supercryl IF Insulating Filler.

Wigranit Novacolor, the first fire-retardant coloured paint for wood finishing, is developed.

Akzonobel acquires Zweihorn and becomes the market leader in professional wood coatings.

2007

Zweihorn launches Variocryl, a new generation of waterborne varnishes.

2008

Zweihorn introduces Duritan, the ultra-fast-drying, UV-cured high-gloss paint system.

The first residues filler is introduced, which can be mixed 1:1 with leftover paint.

2012

Zweihorn celebrates 100 years of excellent service, high quality products and constant innovation in the wood coatings industry.

Variocryl Treppenlack VC-T is launched, a transparent stair varnish for extra heavy load.

Introduction of Glass Additive GLZ that allows to achieve perfect glass finishing.

2021

Zweihorn introduces new trend colour cards to meet the demand for more vibrant and adventurous stain colours.

2022

On the company's 110th anniversary, Zweihorn continues to embody the values it was founded on, delivering quality and innovation to the market.





List of Contents

The following icons classify our products and help you to quickly identify, to which group the product belongs and which ingredients it contains.



Icons

Solvent-based products

In addition to important raw materials that are responsible for the surface quality of a varnish/paint, these products contain high-quality solvents. Among others, these solvents account for short drying times and perfect flow.



Solvent-based/waterborne products

Combine solvents and water with the view to reducing the VOC content. In case of varnishes and paints, these products are also known as hybrid systems. In the case of stains, combinations of alcohol and water are used to optimize drying.



Waterborne products

In addition to important raw materials that are responsible for the surface quality of a varnish/paint, these products mainly contain water. Small quantities of solvents (between 5 and 10%) are added in order to optimize the flow properties.



Products made of natural raw materials

Contain natural, renewable raw materials. Are free from allergy-causing terpenes, such as citrus terpenes and balm terpentine oil. They do not contain any toxics and are free from lead and cadmium.



VOC-compliant products

Designates products, which are VOC-compliant in accordance with ChemVOCFarbV or which do not come under the ordinance. These products may then be used for permanent installations and components of a building. Hardeners, thinners and additives are part of the respective varnishes/paints. For that reason, these products, as well as detergents und repair products, do not get the icon.



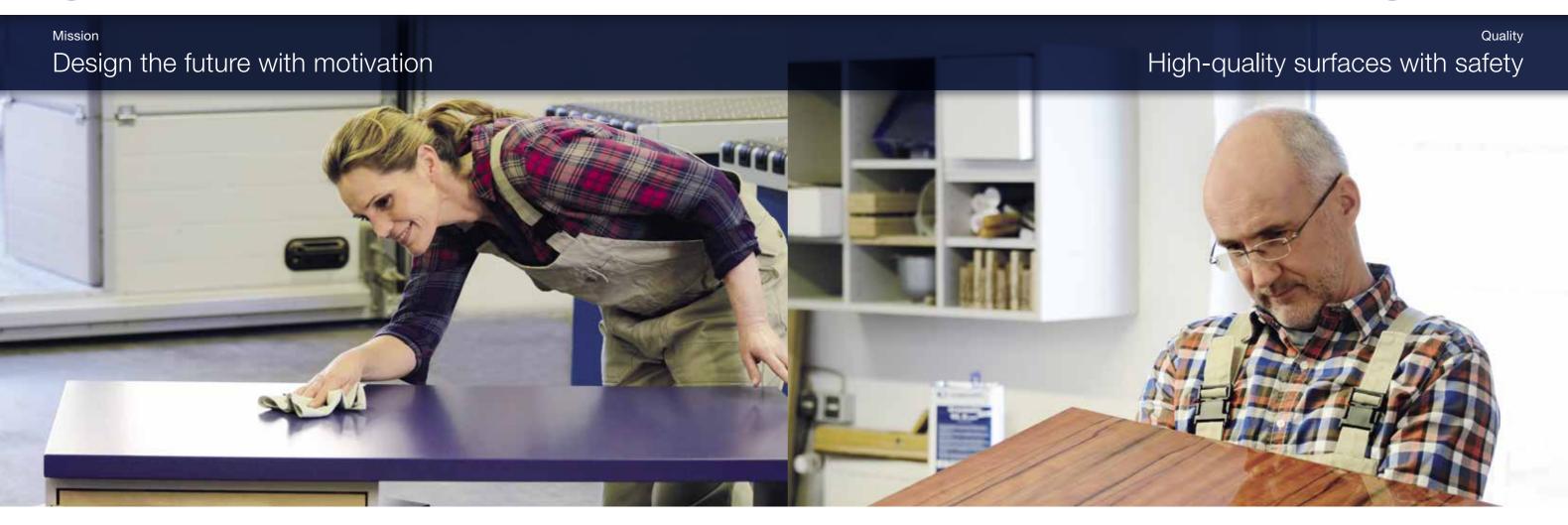
Sustainable products

Designates products that are especially environmentally friendly. The products can be low-solvent or waterborne varnishes/paints, natural products or resource-efficient (e.g. waste-avoiding) products.









Our mission is to make the future better, easier and more sustainable.

We accomplish this through excellent service, high quality products and our constant innovations which are a first on the market. These novel products and services are always aimed at making your work easier, quicker and more profitable.

Our wonderful sales teams, made up of specialised staff with the relevant knowledge in woodwork and surface design, are there to provide you with expert support, even in the most difficult of cases

Sustainability is an important strategic objective for Zweihorn®, an AkzoNobel brand, and is taken into account for all product development. By placing sustainability at the centre of all our actions, our customers and employees also benefit – as does our planet.

In this way, we want to turn challenges into opportunities. This is the only way to ensure the long-term success of our company. An approach that even reflects our sustainability strategy in its name: "Doing more with less".

Safety, health and environmental protection are our keywords.

AkzoNobel has for many years always been in one of the leading positions of the Dow Jones Sustainability Index.

We thereby take a clear responsibility for our common future.

Quality gives you the certainty of being able to meet your clients' requirements.

Surface requirements are in constant growth. Thanks to our innovative products, we have often given rise to new and higher requirements in the market - always thinking of how to make your work more valuable.

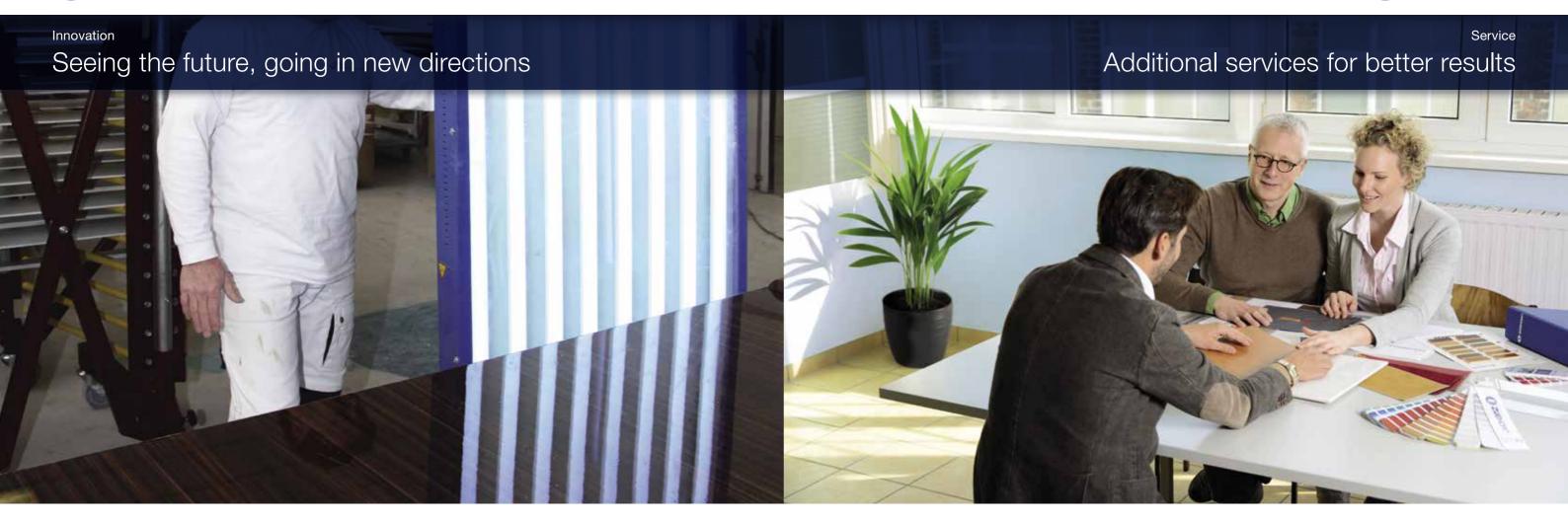
We maintain a very high standard of quality from the development of the product to its production. This guarantees that only faultless and the most sustainable raw materials are used. Our quality management supervises and controls every production batch before it arrives in the warehouse. Furthermore, the product quality and manufacturing process are regularly checked by independent institutes.

Our products are always conceived as a complete system. This provides a perfect surface structure. Our clients say that our products are simple and easy to apply. The safety of use of our products makes them very popular with craftsmen and painters.

An example of this is 'our one hardener strategy': one hardener for fillers, paints and varnishes. Furthermore, our paints and varnishes meet many of the important test standards that you need for a variety of objects.







Finding perfect and innovative solutions is a question of experience.

We are always searching for improvements and innovation and we therefore develop novel products, product solutions and other services that revolutionise the market. For this, of course, we use the international development network of AkzoNobel.

This produces products such as Duritan®, the highspeed paint system, which is quickly hardened by sunlight and thus gains extreme hardness. This coating system is patented worldwide and since being introduced on the market, has been mainly used in the high-quality interior construction of ships, planes and villas.

Throughout our innovation process, our attention is drawn to seminal, environmentally friendly and sustainable systems, such as water varnish and natural products.

Service only has meaning if it offers real added value.

Our expert consultants can advise you on all your questions pertaining to surface design and can provide you with on-site training at your workshop. We are the first and only producer to offer you online advice with Orakel. This enables you to receive round-the-clock answers to questions about the product you are treating.

Our colour service is second to none: we can deliver over 16,000 colour hues according to NCS, RAL, Sikkens etc. within 24 hours. In addition, we can adjust almost any shade according to our customers' samples (fabric, wallpaper, plastics, etc.).

Besides our real wood sample cards for stains and natural products, Zweihorn® puts at your disposal numerous advisers (e.g., Naturtrend manual, parquet manual, etc.), which can provide you with valuable tips and information on the treatment. We are happy to provide you with our ZISS kit which contains many real wood samples for your customer support. This selling tool is unique on the market.

Surfacers and Fillers

Surfacers and fillers are used to prepare the substrate. Surfacers the wood before the next coloured coating. Fillers can also be even out dents, tears and other damage on the wood surface. Fillers even out small uneven features of the substrate and cover

used as a bonding agent between the wooden substrate and the





Surfacers and Fillers Surfacers and Fillers





Solvent-based fillers

Wigranit® Insulating Filler

High-quality, white pigmented two-pack PUR insulating filler for complete filling and good insulation, especially in wet rooms.

- quick drying (sandable after three hours)
- very good filling power
- as an adhesion primer on aluminium, iron, steel and various plastic materials
- reliable protection for use in wet rooms (passed all extreme tests)
- excellent isolating properties

MR 10:1 (10%) with PUR Hardener 5085, PUR Thinner S 9004 or S 9029

IF; 4kg, 10kg, 25kg

Wigranit® Filler

Reasonably priced, quick drying, white pigmented two-pack PUR filler for almost all applications (except in wet rooms)

- extremely quick drying (sandable after two hours)
- very good filling power
- excellent sag resistance

MR 20:1 (5%) with PUR Hardener 5085, PUR Thinner S 9004 or S 9029

WIG/F; 3 kg, 10 kg, 25 kg

Wigranit® Allround Primer

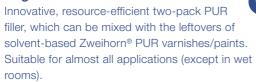
Multifunctional, white pigmented 2-pack PUR allround primer with an extremely smooth surface finish.

- easy to use perfect for mass production
- quickly drying (sandable after four hours)
- good filling power
- can be applied on MDF without any isolation
- good isolating properties

MR 10:1 (10%) with PU Hardener 5085, PU Thinner S 9004 or S 9029

AF; 25 kg

Wigranit® Residues Filler



- Utilization of unhardened Zweihorn® two-pack PUR varnishes/paints
- high disposal costs no longer required
- making of a coloured filler of your choice with Wigranit® Novacolor (if the mixing ratio is 1:1 -100 % by volume)

MR 10:1 (10%, by weight) or 100:15 (15%, by volume) with PUR Hardener 5085, PUR Thinner S 9004 or S 9029

RF; 10 kg (pre-filled collecting container)

Wigranit® Magnetic Filler





- all commercially available magnets will adhere to the coated surfaces
- the magnetic surface is not visible after it has been coated with paint

MR 20:1 (5 %, by weight) or 10:1 (10 %, by volume) with PUR Hardener 5085

conventional wood and wood material.

WIG/MHF; 5 kg

Waterborne surfacers and fillers



Waterborne Surfacer

White-pigmented surfacer.

- for filling of pores
- for repairing smaller defects

WSP; 0.4 kg

Unocryl Structure Filler

Highly viscous, thixotropic one-pack filler for the creation of structured surfaces.

- simple creation of structured 3D effects
- easily applicable and shapeable

USF; 6 kg

Effect samples for Unocryl Structure Filler





Rust effect (light



Variofill

Innovative, white-pigmented one-pack/two-pack PUR filler for normal and increased requirements.

- as one-pack product for normal requirements
- as two-pack product also applicable as insulating filler (reliable protection for use in wet
- as an adhesion primer on aluminium, iron, steel and various plastic materials
- very good filling power

The mixing ratio in case of the 2-pack processing is 10:1 (10 % by weight) or 100:15 (15 %, by volume) with PUR Waterborne Paint Hardener PWH 3200, thinner water or Variocryl® Optimizer.

VF; 4 kg, 25 kg







Coloured Paints

Coloured Paints

ZWEIHORN



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Solvent-based coloured paints

Wigranit® Novacolor Paint

High-quality, pigmented two-pack PUR paint for all highly specified coloured coating applications.

- excellent filling and covering power
- very good sag resistance
- lightfast colour pigments
- on appropriate substrates also applicable without any filler
- extremely large variety of colours

MR 10:1 (10%) with PUR Hardener 5085 or Turbo hardener TH, Thinner S 9004 or S 9029

WNC/Colour; 3 kg, 25 kg

WNC/Black, RAL 9010, R 9016; 3 kg, 10 kg, 25 kg, two-pack aerosol can 400 ml available upon request from many Zweihorn® dealers

Wigranit® Novacolor High-Gloss Paint

High-quality, pigmented 2K-PUR high-gloss coloured paint for all durable, coloured finishes.

- Very good brilliance and high gloss
- Easy to polish with Zweihorn® polishing pastes
- Excellent filling and covering power
- Great stability
- Lightfast colour pigments
- Large range of colours II

MR 2:1 (50%) with High-Gloss Hardener HGH, Thinner S 9004 or S 9029

WNCH/Colour; 3kg

WNCH/black, white; 3 kg, 25 kg

Wigranit® Novacolor Effect Paint

High-quality 2K-PUR effect coatings for all highperformance, effective finishes. Metallic and pearl lustre base coat, as well as gold varnish.

- Good body
- Great stability
- Lightfast colour pigments
- High brilliance
- Metallic and pearl lustre base coat, can also be shaded with WNC/colour shade

MR 20:1 (5%) with PUR Hardener 5085. Thinner S 9004 or S 9029

WNC/MB; 3 kg, 25 kg WNC/PGB; 3kg, 25kg WNC/Gold; 3 kg

Waterborne coloured paints





Variocryl® Color Paint

Innovative, pigmented 1K/2K-PUR water-based coloured paint, for normal and enhanced requirements.

- Single component for normal use
- Double component for heavy use
- Excellent filling and covering power
- Great stability
- Lightfast colour pigments
- Double component ring resistant even w/o clear varnish
- Large range of colours I

MR 10:1 (10 %) for 2K processing with PUR water-based varnish curing agent PWH 3200, water thinner or Variocryl® Optimizer

VCC/Colour; 3 kg

VCC/white, RAL 9010; 3kg, 25 kg

VCC/black; 3kg, 20kg

Variocryl® Color Effect Paint

High-quality 2K-PUR water-based effect coatings for enhanced requirements. Effective finishes in metallic, pearl lustre and gold.

- Good body
- Great stability
- Lightfast colour pigments
- High brilliance
- All effect coatings can also be shaded with VCC/colour shade

MR 20:1 (5 %) with PWH 3200 PUR water-based varnish curing agent, thinner Variocryl® Optimizer

VCC/MB; 3 kg VCC/PGB; 3 kg

VCC/Brilliant Gold; 3 kg

Basic colours Wigranit® Novacolor WNC + WNCH



Effect samples for Wigranit® Novacolor and Variocryl® Color

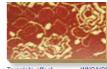


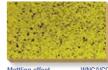


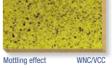


Individual effects for Wigranit® Novacolor and Variocryl® Color

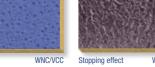


















Stains

Wood stains make raw wood darker, stronger, more expressive, pastel-like or even bright, with greater or lesser nuance. The colour is
The effect of stains: obtained by soluble colouring or pigments. These penetrate the wood • Enhancement and reinforcement of the original wood colour fibres or settle on the wood. On the other hand, chemical additives in • Colour design with wood structure the stain, that react with the ingredients of the wood, can change the • Enhancing wood pores

colour of the wood.

- Enhancing the contrast on soft woods
- Harmonisation and equalising
- Covering variations in the wood





Stains Stains



Solvent-based stains



Wigranit® Novacolor Stain

Solvent-based pigmented stain with pore-emphasizing colouring.

- many wood and colour hues
- large variety of colours 2
- lightfast pigments
- no grain raise

WNCB/Colour, colour hues and batch sizes upon request from your Zweihorn® dealer

Colour samples Wigranit® Novacolor Stain











WNCB/ca BAI 6017



Antique-Finish Stain

Solvent-based dye/pigmented stain with rustic effect on coarse-pored wood.

- no grain raise
- also suitable for patinating
- all colours can be mixed with each
- large variety of colours 2
- lightfast dyes and pigments

S 9800/Colour; 11, 51

S 9800/2733 colourless; 1 I, 5 I, 25 I

Standard colours Antique-Finish Stain







WNCB/ca. RAL 3012















CK 7 Pigment black

S 9800/3787





Colour shades of Colour Concentrate

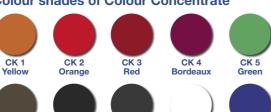
Liquid concentrate in 10 colour hues for tinting the following solvent-based clear coats and stains:

• Antique-Finish Stain

Colour Concentrate

Colourit

CK/Colour; 500 ml



CK 8 Black

CK 9 White



Waterborne/solvent-based stains





Spray and Brush Stain

Waterborne/alcohol-based pigment stain with brilliant effect on hardwood and discreetly emphasized pore on coarse-pored

- all colours can be mixed with each other
- large variety of colours 2
- lightfast pigments
- brush application = discreetly emphasized pore
- spray application = clear, brilliant effect

S 9900/Colour; 11, 51 (not all colour hues available)

- S 9900 Basic colours; 11
- S 9900/4000 colourless; 51, 251

Basic colours



Standard colours Spray and Brush Stain















Waterborne stains

Aqua Wood Stain

Waterborne pigment stain with brilliant effect on hardwood and discreetly emphasized pore on coarse-pored wood.

- easy application
- all colours can be mixed with each other
- large variety of colours 2
- lightfast pigments

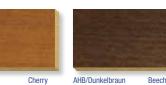
AHB/Colour; 1 I, 5 I (not all colour hues available) AHB colourless 51, 251

Standard colours Aqua Wood Stain











Green BXF 20

AHB/Mittelbraun



AHB/Kirsche*



*not available in 51



Red BXF 13

Stain Extract

Liquid concentrate in 9 colour hues for tinting of the following water-soluble clear coats and stains:

- Aqua Wood Stain
- Wax Stain
- Colourcryl

BXF/Colour; 500 ml



Stains



Waterborne stains



Wax Stain

Stains

Waterborne dye/pigment stain with natural waxes especially for softwood.

- all colours can be mixed with each other
- large variety of colours 2
- lightfast dyes and pigments
- positive effect on softwood
- equalising on hardwood

WB 01 colourless; 750 ml, 51

WB/Colour; colour hues and batch sizes upon request from your Zweihorn® dealer

Colour samples Wax Stain























Aqua Positive Stain

Waterborne dye/pigment stain especially for softwood.

- all colours can be mixed with each other
- large variety of colours 2
- lightfast dyes and pigments
- extreme positive effect on softwood
- equalising on hardwood

APB/Colour; 11

APB Basic colours; 1I (APB 08, 1I, 5I) and APB 01 colourless; 1I, 5I

Standard colours Aqua Positive Stain



Waterborne stains

Aqua Creative Stain

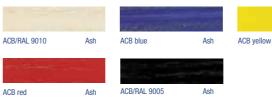
Waterborne pigment stain for the creation of opaque to transparent colour hues with equalising coloration.

- wood and colour hues
- all colours can be mixed with each other
- large variety of colours 2
- lightfast pigments
- brush application = rustic stain appearance
- spray application = unwetted pore

ACB/RAL 9010, ACB/RAL 9005 and

ACB/200 colourless; 1 I, 5 I ACB/blue; yellow, red; 1 l

Basic colours



Colour samples Aqua Creative Stain









ACB/RAL 3018

Kaligenbeize

Waterborne wood lye treatment. Chemically reacts with the wood ingredients.

• causes the "caustic oak" effect

Note: Colour deviations are due to printing requirements.

• can also be applied on many other types of wood with ingredients

ORF 19945; 11

Application examples Kaligenbeize



ACB/RAL 2011











ORF 19945) are available in almost any desired colour (ACB and WNCB also according to RAL, Sikkens, NCS) or your own sample.

Basic colours









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Varnishes offer the wood ideal protection against external influences and damage, so that surfaces are more resistant and durable. However, varnishes do not only protect, they also embellish and showcase the object. They have many applications: pores). At the same time, the decision is linked to available Colourless systems can be used alone, but they can also be applied as a finishing varnish on stained and painted surfaces.

Choose the ideal varnish according to its application purpose. For this, it is important to consider the requirements and demands in terms of protection, strain and design (gloss, open pores/closed technology and options, to existing restrictions (ChemVOCFarbV, test standards) and finally to economic considerations.





Varnishes



Varnishes



Solvent-based one-pack primers and varnishes

Super Duroffix® Filling Primer

Formaldehyde-free one-pack filling primer for normal environments.

- quick drying
- excellent sanding properties
- very good filling power

NC Thinner 10063 or PUR Thinner S 9029

SDF-F; 51, 251

Super Duroffix® Varnish

Formaldehyde-free one-pack filling primer for normal environments.

- quick drying
- good filling power
- PVC resistant

NC Thinner 10063 or PUR Thinner S 9029

SDF-H: 11, 51

SDF8,9,0; 11, 51, 251

aerosol spray 400 ml

Super Duroffix® Brightening Varnish

Formaldehyde-free, not pore-emphasizing one-pack brightening varnish for normal environments.

- quick drying
- brightening effect on light wood
- preservation of light staining colours

NC Thinner 10063 or PUR Thinner S 9029

SDF-A; 51 3

Unolit Varnish

One-pack PUR varnish with integrated hardener for roller and brush application for harsh environments

- good filling power
- good resistance to chemicals
- good scratch resistance
- PVC resistant

PUR Thinner S 9004 or S 9029

UL8,9; 11, 2,51, 51 3

Solvent-based two-pack primers and varnishes

Plastic Varnish Insulating Varnish

Deeply penetrating two-pack PUR insulating varnish.

- also for roller and brush application
- excellent transparency and brilliance
- insulates wood rich in resin and ingredients (exotic wood) and MDF
- very good chemical resistance and scratch resistance

MR 2:1 (50%) with Hardener S 7777, PUR Thinner S 9004 or S 9029

S7000; 11, 51

Diadur® Plus Varnish

Two-pack PUR varnish for highly stressed areas.

- also for roller and brush application
- integrated light protection for light wood
- high filling power
- very good resistance to chemicals
- very good sag resistance
- excellent scratch resistance
- PVC resistant

MR 10:1 (10%) with PUR Hardener 5085,

PUR Thinner S 9004 or S 9029

DD+8, 9; 51, 251 3

Solvent-based two-pack primers and varnishes

Crystallit® Varnish

Two-pack PUR varnish for very harsh environments.

- lightfast
- very good resistance to chemicals
- very good scratch resistance
- PVC resistant

MR 10:1 (10%) with PUR Hardener 5085,

PUR Thinner S 9004 or S 9029

CL7,8,9,0; 51, 251, two-pack aerosol can 400 ml available upon request from many Zweihorn® dealers **☑**

Crystallit® Deep-Matt Varnish

Transparent two-pack PUR varnish deep-matt for very harsh environments.

- lightfast
- deep-matt, near-natural look
- very good resistance to chemicals
- very good scratch resistance
- PVC resistant

MR 10:1 (10%) with PUR Hardener 5085, PUR Thinner S 9004 or S 9029

CL-TM; 51, 251, two-pack aerosol can 400 ml available upon request from many Zweihorn® dealers

Crystallit® Brightening Varnish

Natural look two-pack PUR brightening varnish.

- lightfast
- brightening effect on light wood
- preservation of light staining colours
- good resistance to chemicals
- PVC resistant

MR 20:1 (5 %) with PUR Hardener 5085, PUR Thinner S 9004 or S 9029

CL-A; 5I, 25I 🖪

Crystallit® Filling and Insulating Primer

Two-pack PUR filling and insulating primer for closed-pore coating structures.

- hardened 10:1 (10 %) for normal applications
- hardened 5:1 (20%) for sophisticated applications (insulation against ingredients and high protection when used in wet rooms)
- excellent transparency and brilliance
- lightfast
- extremely good filling power

MR 10:1 (10%) or 5:1 (20%) with PUR Hardener 5085, PUR Thinner S 9004 or S 9029

CL-FI; 51, 251, two-pack aerosol can 400 ml (MR 10:1) available upon request from many Zweihorn® dealers

Crystallit® High-Gloss Varnish

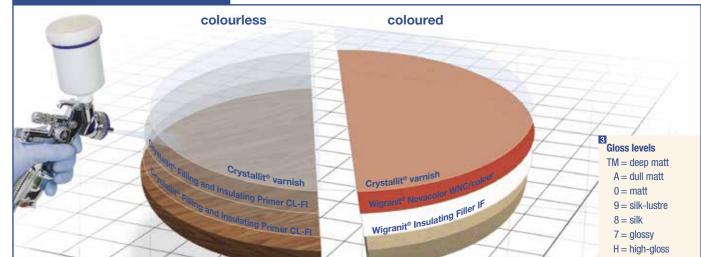
Brilliant, transparent two-pack PUR high-gloss varnish for very harsh environments.

- easily sandable and polishable
- good covering of sanding marks
- lightfast
- high gloss (approx. 92 %)
- very good resistance to chemicals
- very good scratch resistance
- PVC resistant

MR 2:1 (50 %) with PUR Hardener 5085, PUR Thinner S 9004 or S 9029

CL-H; 51, 251 3

Crystallit system configuration



Gloss levels

TM = deep matt A = dull matt

0 = matt

9 = silk-lustre 8 = silk

7 = glossy

H = high-gloss



Varnishes Varnishes



Solvent-based two-pack varnishes

Purolit Top Varnish

Two-pack PUR varnish for very harsh environments.

- can also be applied by roller
- lightfast
- good filling power
- good resistance to chemicals
- good scratch and abrasion resistance

MR 10:1 (10%) with PUR Hardener 4084. PUR Thinner S 8003 or S 9029

PL-T8,9; 251 3

Colourit Coloured Varnish

Coloured two-pack PUR varnish for coloured design without previous staining.

- 40 glazing colours (colour matching fan available)
- staining effect without staining
- renovation of furniture surfaces

MR 10:1 (10%) with PUR Hardener 5085.

PUR Thinner S 9004 or S 9029

COL7,8,9,0/Colour; 51, 251

Purolit Varnish

Two-pack PUR varnish for normal environments.

- lightfast
- good resistance to chemicals
- good scratch resistance
- PVC resistant

MR 10:1 (10%) with PUR Hardener 4084,

PUR Thinner S 8003 or S 9029

PL8,9,0; 251

Gloss levels

TM = deep matt

A = dull matt

0 = matt

9 = silk-lustre

8 = silk

7 = glossyH = high-gloss

Colour samples Colourit and Colourcryl*





light (6-000-1) medium (6-000-2

Solvent-based two-pack surfacer/three-pack primers and varnishes





Duritan® Pore Surfacer

Transparent two-pack pore surfacer for surfaces and small imperfections.

- ultra-fast drying and curing by means of light (patented)
- quick and easy surfacing
- lightfast
- free from solvents
- 100 % filling power
- saves many varnishing cycles

MR 1:1 (100%) Component A and B

DT-PS; 300 g

Duritan® Filling Primer

Three-pack High-Solid filling primer for closed-pore coating structures.

- ultra-fast drying and curing by means of light (patented)
- excellent sanding properties
- very good transparency and brilliance
- lightfast
- most extreme filling power
- enormous savings in material and time

MR 100:100:2 with Duritan® PUR Hardener DH1 (100%) and Duritan® Activator DA2 (2%, by weight or 2,5%, by volume)

DT-F; 51

Duritan® High-Gloss Varnish

Transparent, brilliant, three-pack High-Solid highgloss varnish for most extremely harsh environments.

- ultra-fast drying and curing by means of light (patented)
- lightfast
- most extreme filling power
- extreme gloss (approx. 92 %)
- best resistance to chemicals
- most extreme hardness, scratch and abrasion resistance
- PVC resistant
- enormous savings in material and time

MR 100:100:2 with Duritan® PUR Hardener DH1 (100%) and Duritan® Activator DA2 (2%, by weight or 2,5%, by volume)

DT-HG; 51 🖸

Gloss levels

TM = deep matt A = dull matt

0 = matt

9 = silk-lustre 8 = silk

7 = glossy

H = high-gloss

30 Note: Colour deviations are due to printing requirements. Note: Colour deviations are due to printing requirements.



Varnishes Varnishes



Waterborne one-pack and two-pack stair varnishes





Variocryl® Stair Varnish

Transparent one-pack/two-pack PUR stair varnish for extra heavy load.

- creak-free (already as one-pack product), i.e., specially suitable for closed-string and bracketed wooden stairs
- resistant to crème and grease already as onepack product
- extremely abrasion-proof, scratchproof and skid resistant as two-pack stair varnish
- suitable for roller and brush application
- good skid resistance
- excellently suitable for coating of highly stressed components and furniture
- Natural wood appearance in the gloss levels

In the case of two-pack processing, MR 20:1 (5%) with PUR Waterborne Paint Hardener PWH 3200, thinner Variocryl® Optimizer or tap water

VC-T9,0; 51, 251 3



Waterborne one-pack and two-pack varnishes





Variocryl® Varnish

Transparent one-pack/two-pack PUR varnish for heavy traffic.

- as one-pack product for normal requirements
- as two-pack product for heavy traffic
- lightfast
- good emphasize of pores on most wood types
- very good filling power
- very good resistance to chemicals if hardened
- very good resistance to handcreams and grease if hardened
- very good scratch and abrasion resistance
- PVC resistant
- also available in deep-matt

In the case of two-pack processing, MR 10:1 (10%) with PUR Waterborne Paint Hardener PWH 3200. thinner Variocryl® Optimizer or tap water.

VC8,9,0,-TM; 51, 201 €

Gloss levels

TM = deep matt A = dull matt 0 = matt9 = silk-lustre 8 = silk7 = glossy

H = high-gloss

Waterborne one-pack and two-pack parquet systems





Joint Filler Solution

Solution for mixing with sanding dust (last intermediate sanding) to make a filler.

- closes joints and holes
- reduces lateral glueing
- easily to be applied
- quick drying and easily sandable

MR 2:1 to 5:1 FK with wood flour (depending on the type of wood)

FK; 11, 51

Unocryl Parquet Primer

One-pack parquet primer for roller and putty knife application for Unocryl and Duocryl parquet varnish-

- reduces side bonding
- minimizes the discolouration of wood
- easily to be applied (roller, putty knife)

Duocryl Filling and Insulating Primer

• insulates wood rich in resin and ingredients

MR 5:1 (20%) with PUR Waterborne Paint Hardener

PWH 3200, thinner Variocryl® Optimizer or tap water.

Transparent two-pack PUR varnish for very harsh

good emphasize of pores on most wood types

• very good resistance to handcreams and grease

• very good hardness, scratch and abrasion

MR 5:1 (20%) with PUR Waterborne Paint Hardener

PWH 3200, thinner Variocryl® Optimizer or tap water

very good transparency and brilliance

primer for closed-pore coating structures.

excellent sanding properties

very good filling power

(exotic wood) and MDF

- quick drying
- good sanding properties

Thinner tap water

UC-PG; 51

Unocryl Parquet Varnish

One-pack parguet varnish for roller and brush application for normal traffic in residential areas.

- easily to be processed
- quick drying
- high abrasion resistance
- good hardness and scratch resistance

Thinner tap water

UC-P8,9; 11, 51 3

Duocryl Parquet Varnish

Two-pack parquet varnish for roller and brush application for heavy traffic in residential and commercial areas.

- easy processing
- quick drying
- skid resistance R9 (with 3 % STP-F)
- extreme abrasion resistance
- very good hardness and scratch resistance

MR 20:1 (5%) with PUR Waterborne Paint Hardener PWH 3200, thinner tap water

DC-P8,9; 4.81 3

lightfast

DC-FI; 51

environments.

lightfast

resistance

PVC resistant

Duocryl Varnish

very good filling power

DC8,0; 51 and DC9; 51, 251

very good resistance to chemicals

• skid resistance R9 (with 3% STP-F)

Waterborne two-pack varnishes



Transparent two-pack PUR filling and insulating Coloured two-pack PUR varnish for coloured design without previous staining.

- glazing colours (similar to Colourit, see page 30)
- staining effect without staining
- renovation of furniture surfaces

MR 5:1 (20%) with PUR Waterborne Paint Hardener PWH 3200, thinner Variocryl® Optimizer or tap water.

COC8,9,0/Colour; 51, 251

Duocryl High-Gloss Varnish

Highly transparent two-pack PUR varnish for very harsh environments.

- easily sandable and polishable
- lightfast
- very good filling power
- high gloss level
- very good resistance to chemicals
- very good resistance to handcreams and
- very good scratch resistance
- PVC resistant

MR 5:1 (20%) with PUR Waterborne Paint Hardener PWH 3200, thinner tap water

DC-HG: 51

Gloss levels TM = deep matt

A = dull matt 0 = matt

9 = silk-lustre 8 = silk

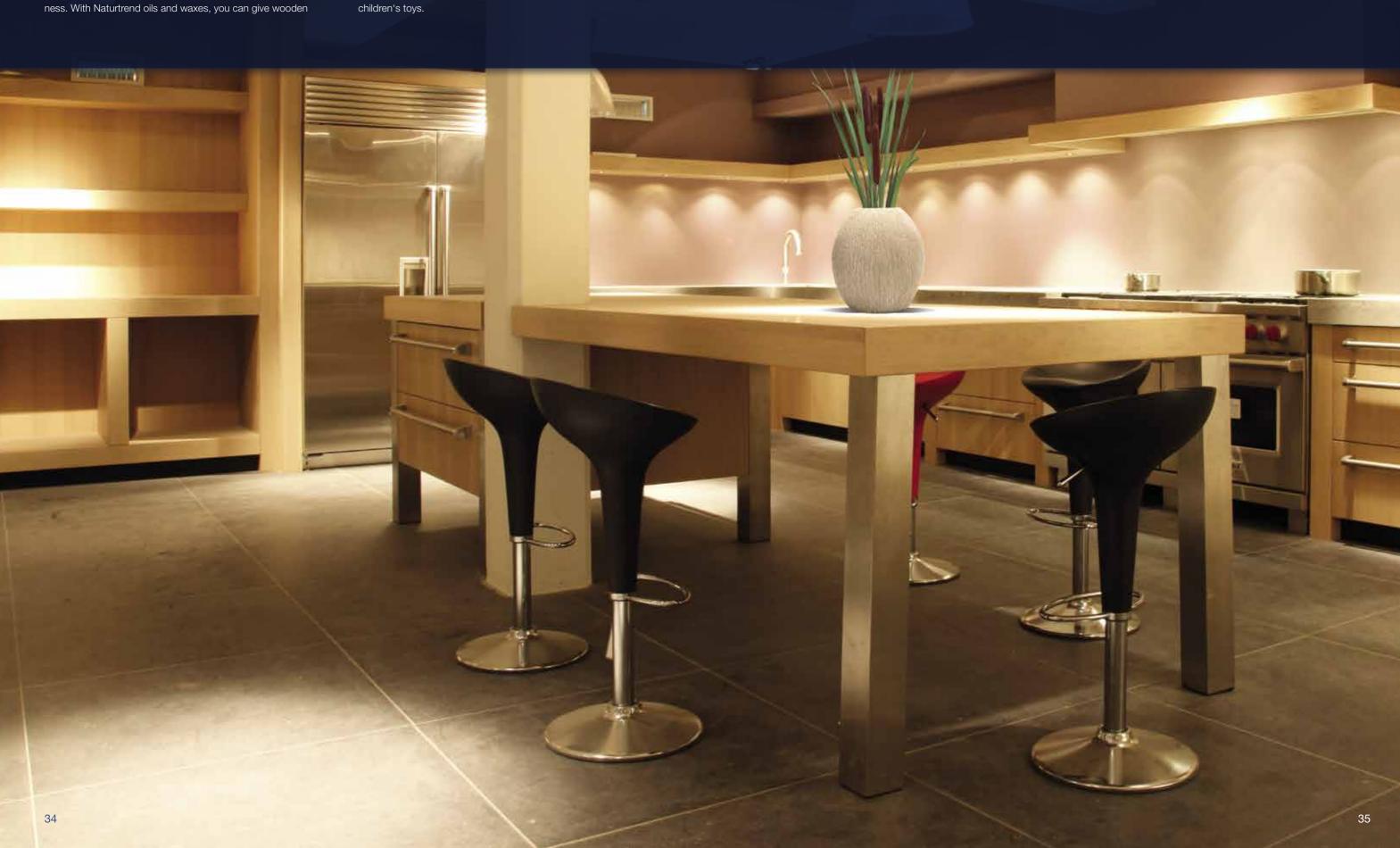
7 = glossy

H = high-gloss



The sustainability and healthy living trend is establishing modern impress by their high quality purist presence, longevity and timeless- from harmful and allergenic terpenes for safe treatment, even for

furniture and floors a high quality natural surface and at the same methods in new contemporary interior decoration. Natural surfaces time contribute to a healthy and sustainable living environment, free





Natural Products All Naturtrend products are free of cobalt.







Interior oils



Naturtrend Hard Oil Naturtrend Hard Wax Oil

High-quality, transparent 100% oil for many fields of application.

- free from solvents
- extreme filling power
- pore-emphasizing effect
- open pores = healthy indoor climate

NHO; 750 ml, 51, 251

Naturtrend Project Oil

High-quality, transparent oil with wax content for almost any field of application.

- good filling power
- no emphasizing of pores
- very quickly drying
- easy to be processed
- open pores = healthy indoor climate
- our recommendation for stairs and parquet

NPO; 750 ml, 51, 251

High-quality, transparent oil/wax combination for almost any field of application.

- with high wax content for excellent look and
- strongly water-repellent
- good filling power
- no emphasizing of pores
- quick drying
- easy to be processed
- open pores = healthy indoor climate
- our recommendation for wet rooms

NHWO; 750 ml, 51



Interior waxes



Naturtrend Hard Wax - solid -High-quality, transparent for decorative

fields of application. • on the basis of extra hard waxes for a silky

- glow
- pore-emphasizing effect
- easy to be processed, even by means of hot spraying
- open pores = healthy indoor climate

NHW; 500 ml, 2,51

Naturtrend Beeswax Balm

High-quality, transparent beeswax preparation for decorative fields of application and for care.

- on the basis of beeswax
- no emphasizing of pores
- easy to be processed, even by means of hot spraying
- antistatic effect
- open pores = healthy indoor climate

NBW; 750 ml, 51



Interior and exterior oils





Naturtrend Wood Design Oil

High-quality, pigmented oil for all fields of application.

- six trendy colours
- all colours can be mixed with each other
- . colour intensity can be reduced by means of **Naturtrend Project Oil**
- protects the wood against UV radiation and influence of weather (only if not thinned)
- good filling power

- quick drying
- easy to be processed
- open pores = healthy indoor climate
- our recommendation for all coloured natural surfaces in indoor and outdoor areas

NHDO; 750 ml, 2.51

Recommended colour hues by wood types Wood Design Oil NHDO

10 Natural white	11 Stone grey	20 Teak	30 Mahogany	60 Walnut	70 Basalt black
Maple	Maple	Bangkirai	Bangkirai	Douglas fir	0ak
Bamboo	Bamboo	Belinga	Bubinga	Ebony	Bog oak
Beech	Bangkirai	Eucalyptus	Cocobolo	0ak	Ash
0ak	Beech	Larch	Iroko tree	Chestnut	Teak
Alder	0ak	Limba	Mahogany	Bog oak	Ebony
Ash	Alder	Macassar	Macassar	Walnut	Wengé
Spruce	Ash	Rosewood	Meranti	Wengé	
Pine	Spruce	Robinia	Merbau		
	Pine	Teak	Redwood		
		Zebrawood	Cedar		

Mixing samples Wood Design Oil NHDO













Surface Correction Products

The Zweihorn® Correct range offers professional help for the removal of big and small flaws in the wood and wooden compos- damage can be repaired by an expert directly on the client's ites, but also in plastic surfaces. This is the case for both varnished and unvarnished surfaces. The Correct range helps you there is no need to first try to match the original colour, thus avoid reclamation costs and invoice reductions. You will also save helping you obtain the correct results.

the costs of extra journeys, given that the most common cases of premises. As corrections are brought with the original material,







Surface Correction Products

Surface Correction Products



Retouching

Correct Opaque and Glazing Pen

Self-filling paint marker for touching up of small, coloured defects.

- for painted surfaces and plastic boards
- for stained surfaces

CDLS; piece



Correct Paintbox

Universal, solvent-based retouching paints for the repair of smaller paint damages.

- universally applicable
- in 24 standard colours
- for exact colour correction of filled smaller defects
- for the imitation of wood veins / pores

CTK Paintbox; piece





Special products and accessories

Greyness Remover

Special product for removal of grey shades from nitro-lacquered surfaces.

Grauweg; 400 ml spray can



Pipettes

Plastic pipettes for fine metering of varnishes and hardeners.

Pipettes; piece



41



Varnishing

Super Duroffix® Spray Cans

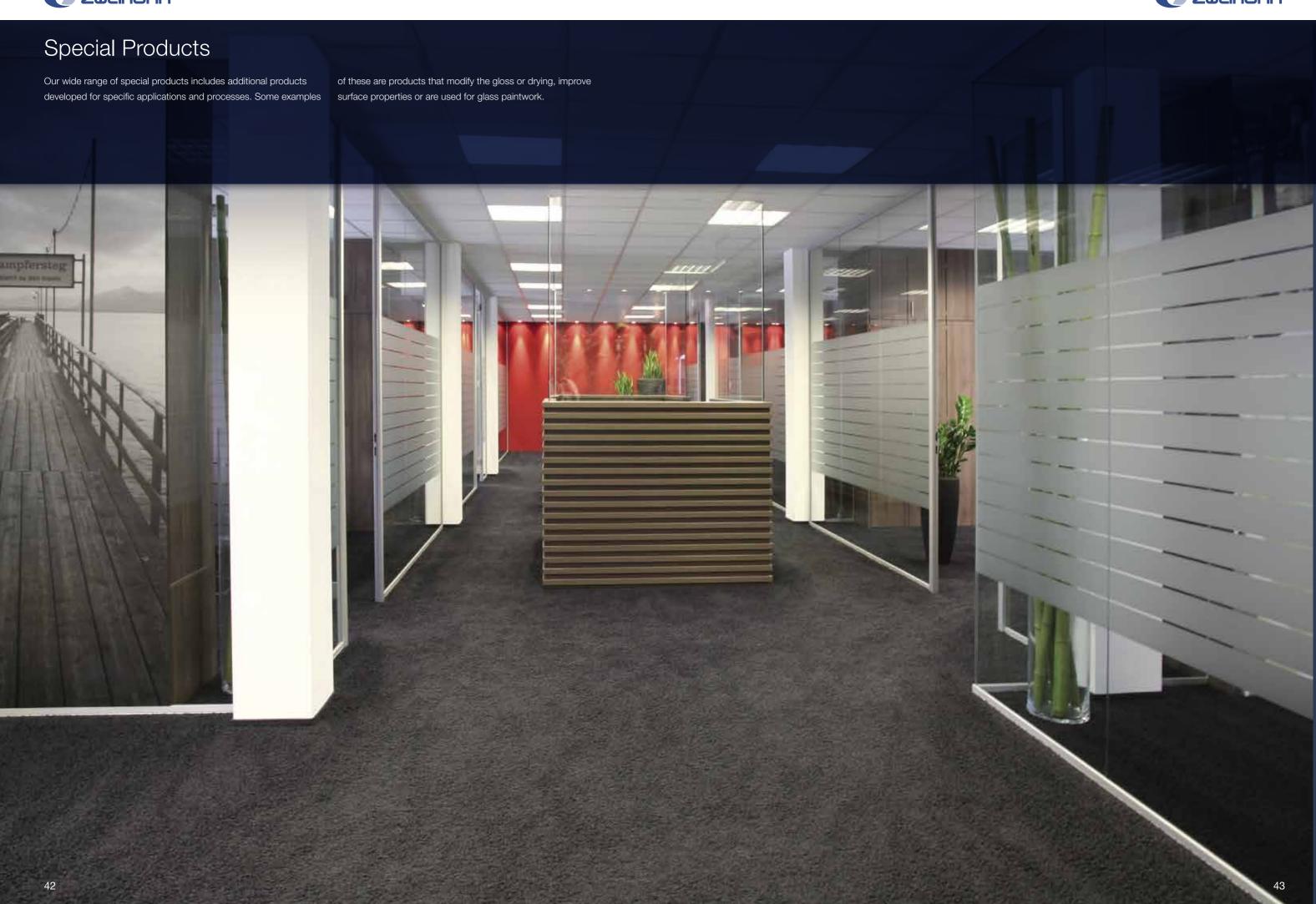
Formaldehyde-free one-pack varnish for partial repair or for varnishing larger surfaces.

- PVC resistant
- quick drying
- available in four gloss levels

SDF-H, 8, 9, 0; 400 ml spray can 3









Special Products



Special Products



Solvent-based special products

Universal Cleanser

For cleaning painting devices and tools from Zweihorn® products containing solvent or water. Also suitable for cleaning of MDF, plastic-coated particle boards and flat laminates.

UR; 101

Adhesion Cleanser

Cleanser and adhesion promoter especially for glass surfaces that shall be coated. Stringently required! SAR; 500 ml

Glass Design Varnish GDL replaced by **GLZ** glass paint additive

see page 45

Adhesion Promoter

For the modification of varnished/painted furniture (solvent-based varnish) and of many plastics and metals in the interior.

HVM; 11



Solvent-based additives

Anti-Silicone

To be used in solvent-based Zweihorn® varnishes and paints against silicone craters.

AS; 100 ml

Flattening Concentrate

Additive for reducing the gloss level of solvent-based Zweihorn® paints and varnishes.

MK; 11, 251

Ring-Resistance Concentrate

By adding 10 % of Ring-Resistance Concentrate into Wigranit® Novacolor Paint, a ring-resistant (anti-metal marking) surface is obtained.

RK; 11

Sunblocker

For the protection of light wood against yellowing. For solvent-based, colourless Zweihorn® varnishes and primers.

SB; 11

Turbo Accelerator

Accelerates drying of almost all solvent-based Zweihorn® varnishes and paints.

TBS: 11

Extends drying time and reduces bubble formation, flow failures and blushing in the case of adverse drying conditions.

VZ; 11

Waterborne special products

High-Gloss Grinding Compound

Waterborne grinding and polishing paste. Contains an abrasive grain, which is self-degradable during polishing. Saves another polishing cycle with all highgloss varnishes and paints.

HSP; 1 kg

High-Gloss Polishing Compound

Waterborne paste to achieve a higher gloss degree. HPP; 1 kg

High-gloss Anti-Haze

For quick and easy cleaning of high-gloss surfaces after polishing. Easily removes hologram effects, streaks and milky haze. HAS recovers the shine on dull surfaces and leaves residue-free, pleasantly smooth surface.

HAS; 1 kg

Waterborne special products

S 68 polishing water replaced by MRP furniture cleaner and care

see page 52

Equalizer

Ready-made product for the equalization of wood prior to staining (e.g., left and right side of veneer).

Duritan® Overspray Drier

Water-borne product for targeted curing of the Duritan® overspray in the spray booth.

DT-OT; 51

Wipe-On Patina Paste

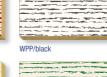
Wipe-on patina paste, based on water, for tinting pores of coarse-pore wood. Also suitable as patinating coat. All colours can be mixed with each other.

WPP/Colour; 1 kg

Standard colours of Wipe-On Patina Paste















Waterborne additives

Aqua Anti-Silicone

To be used in waterborne Zweihorn® varnishes and paints against silicone craters.

AAS; 500 ml

Aqua Flattening Concentrate

Additive for reducing the gloss level of waterborne Zweihorn® paints and varnishes.

AMK; 1 kg

Aqua Sunblocker

For the protection of light wood against yellowing. For waterborne, colourless Zweihorn® varnishes and primers.

ASB; 11

Aqua Thickener

Additive for obtaining greater wet film thickness on vertical surfaces. For the use in waterborne Zweihorn® paints and varnishes.

AVM; 1 kg

Additives, universal

GLZ glass paint additive

Allows the safe painting of glass. Universally applicable in solvent-based paints (WNC/CL) and water-based paints (VCC/VC). Added amount only 2%.

GLZ; 0,5 I

Structure Powder fine/medium

Leads to rougher, extremely scratch proof, resistant surfaces.

STP-F; 0.4 kg STP-M; 0.4 kg

Note: Colour deviations are due to printing requirements.

Hardeners and Thinners

Hardeners react with the bonding agents in the paint/varnish; without hardeners, classic 2K varnishes would not dry and the surface would not become more resistant. Modern, water-based Zweihorn® paint systems, however, can be used both with and without hardener.

Thinners serve to optimise the processing viscosity of the paint materials for the application to be used. Zweihorn® hardeners and thinners are designed for the corresponding Zweihorn® paints/ varnishes, so please follow the exact mixing ratios given to obtain immaculate results.





Hardeners and Thinners

The single hardener concept



Hardeners for solvent-based paints

PUR Hardener 5085

Hardener for almost all solvent-based Zweihorn® fillers, paints and varnishes (one-hardener system). PUR 5085; 0.51, 2.51, 12.51

Turbo Hardener

Special hardener for Wigranit® Novacolor. Makes sure that the paint is drying up to 30% faster.

TH; 2.5I, 10I

PUR Hardener S 7777

Hardener for Plastic Varnish. S 7777; 0.51, 2.51

PUR Hardener 4084

Hardener for Purolit.

PUR 4084; 2.51, 12.51

High-Gloss Hardener

Special hardener for Wigranit® Novacolor High-Gloss. **HGH; 1.5**I

Duritan® Hardener

DH1; 51

Duritan® Activator

DA2; 125 ml

Thinners for solvent-based paints

PUR Thinner S 9004

Normal drying, for almost all solvent-based Zweihorn® fillers, paints and varnishes.

S 9004; 11, 51, 101, 251

PUR Thinner S 9029

Slow drying, for almost all solvent-based Zweihorn® fillers, paints and varnishes.

S 9029; 11, 51

PUR Thinner S 8003

Normal drying, for Purolit **S 8003**; **251**

Cellulose Thinner 10063

Normal drying, for almost all nitrocellulose varnishes 10063; 11, 51, 251



Hardener and thinner for waterborne paints

PUR Waterborne Varnish Hardener PWH 3200

Hardener for almost all waterborne Zweihorn® fillers, paints and varnishes (one-hardener system).

PWH 3200; 240 ml, 0.5l, 2.5l, 12.5l

Variocryl®-Optimizer

For quicker drying and optimum flow and levelling for almost all waterborne Zweihorn® varnishes/paints.



PUR-Hardener 5085 for nearly all solvent-borne products:

Product group	Product	Mixing ratio				
	Wigranit® 2K-PUR Insulating Filler IF	10 : 1 (10 %)				
	Wigranit® 2K-PUR Filler WIG/F	10 : 1 (10 %)				
Filler	Wigranit® 2K-PUR Allround Primer WIG/AF	10 : 1 (10 %)				
	Wigranit® 2K-PUR Residues Filler WIG/RF	100 : 15 (15 %) by volume				
	Wigranit® 2K-PUR Magnetic Filler WIG/MHF	20 : 1 (5 %) by weight 10 : 1 (10 %) by volume				
Coloured Paints	Wigranit® Novacolor 2K-PUR Paint WNC/Colour	10 : 1 (10 %)				
Coloured Paints	Wigranit® Novacolor 2K-PUR Effect Paint WNC/MB, PGB, Gold	20 : 1 (5 %)				
	Diadur® Plus 2K-PUR Varnish DD+8, 9	10 : 1 (10 %)				
	Crystallit® 2K-PUR Filling and Insulating Primer CL-FI	10 : 1 (10 %) or 5 : 1 (20 %)				
Varnishes	Crystallit® 2K-PUR Varnish CL7, 8, 9, 0	10 : 1 (10 %)				
	Crystallit® 2K-PUR Brightening Varnish CL-A	20 : 1 (5 %)				
	Crystallit® 2K-PUR High-Gloss Varnish CL-H	2 : 1 (50 %)				
	Colourit 2K-PUR Coloured Varnish COL7, 8, 9, 0	10 : 1 (10 %)				



PUR Waterborne Varnish Hardener PWH 3200 for all 2K-PUR waterborne products:

	Product group	Product	Mixing ratio
	Varnishes	Duocryl 2K-PUR Filling and Insulating Primer DC-FI	5 : 1 (20 %)
		Duocryl 2K-PUR Varnish DC8, 9, 0	5 : 1 (20 %)
		Duocryl 2K-PUR High-Gloss Varnish DC-HG	5 : 1 (20 %)
		Colourcryl 2K-PUR Coloured Varnish COC8, 9, 0/Colour	5 : 1 (20 %)
		Duocryl 2K-Parquet Varnish DC-P8, 9	20 : 1 (5 %)

Hardener for special products:

Product group	Special hardener	Product	Mixing ratio	
Coloured Paints	High-Gloss Hardener HGH	Wigranit® Novacolor 2K-PUR High-Gloss Paint WNCH/Farbton	2:1 (50 %)	
	PUR-Hardener 4084	Purolit 2K-PUR Varnish PL8, 9, 0	10 : 1 (10 %)	
	PUR 4084	Purolit 2K-PUR Top-Varnish PL-T8, 9	10 : 1 (10 %)	
Varnishes	Duritan® Hardener	Duritan® 3K-High-Solid Filling Primer DT-F	100 : 100 : 2,0 by weight 100 : 100 : 2,5 by volume	
	Duritan® Activator DA2	Duritan® 3K-High-Solid High-Gloss Varnish DT-HG	100 : 100 : 2,0 by weight 100 : 100 : 2,5 by volume	
	PUR Hardener S 7777	Plastic Varnish Insulating Varnish S7000	2:1 (50 %)	

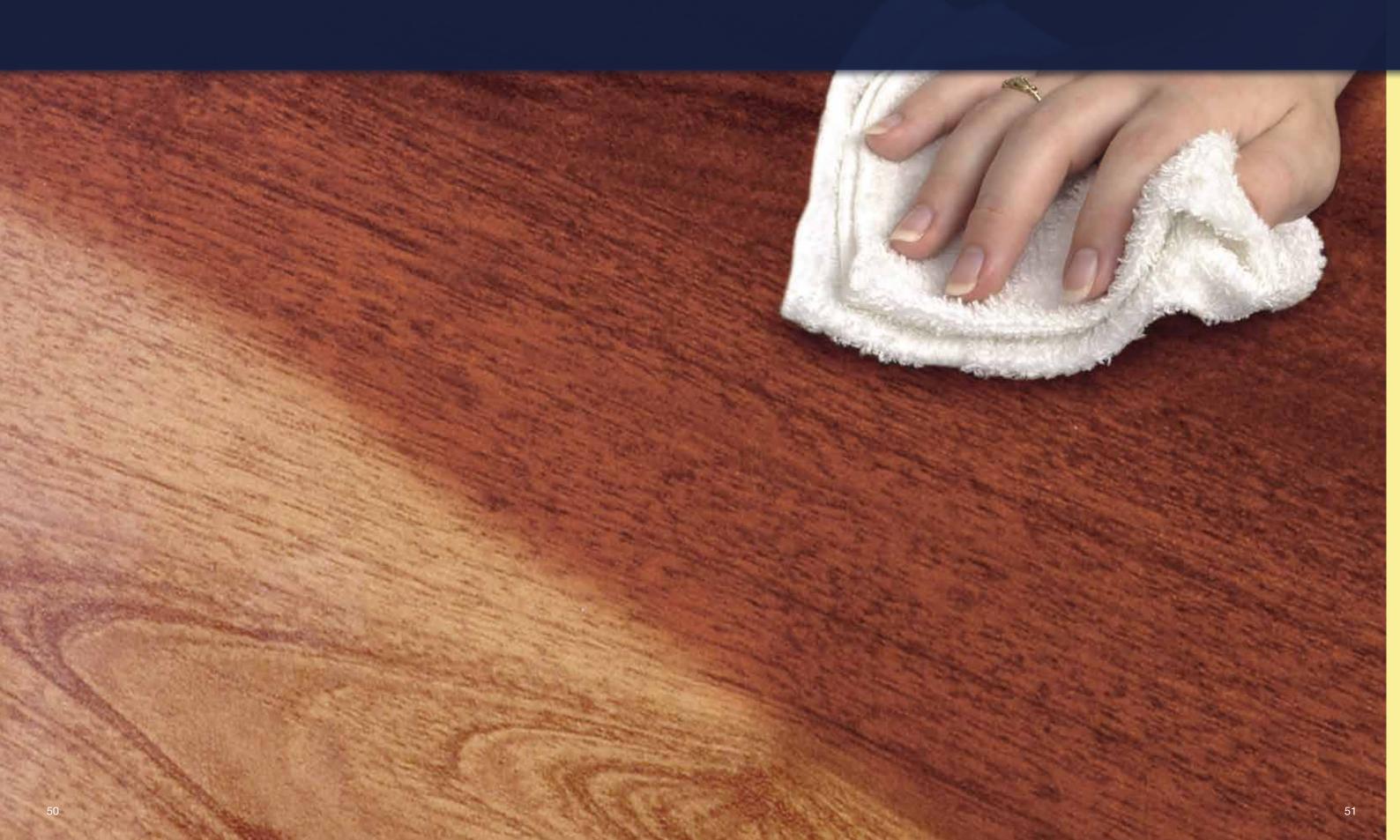




Cleaning and Care

Every surface needs specific care. Zweihorn® offers a complete range of cleaning and care products and refreshers. These products are precisely designed for our numerous surfaces.

A deep matt surface needs different care from a high gloss one, and a natural surface different care again. The corresponding care instructions are available at www.zweihorn.com.







Cleaning and Care

Recommended applications – Stains

Cleaning and care products for natural surfaces

Naturtrend Furniture Cleanser

Natural cleaning concentrate with caring effect for oiled and/or waxed furniture.

NMR; 500 ml

Naturtrend Furniture Care

Natural care product with high content of wax for oiled and/or waxed furniture.

NMP; 500 ml

Naturtrend Oil Refresher

Oil Refresher for renovation, refreshment and care of all colourless oiled interior wooden and cork surfaces.

NOA; 500 ml

Naturtrend Parquet Cleanser

It cleans and cares with one application. For oiled and/or waxed floors.

NPR; 11

Naturtrend Parquet Care

Natural care and protection especially for oiled and/or waxed floors.

NPP; 11

Intensive Cleanser

Removes old self-lustre coatings, oils, waxes and other contaminations before the surface is treated again. Also suitable for cleaning of equipment and machines after Naturtrend products have been applied.

IR; 2.51

Cleaning and care products for varnished/painted surfaces

Furniture Cleanser and Care

Cleaning and care product for all matt to high gloss furniture surfaces.

- removes dust, dirt and fingerprints
- closes micro-scratches and forms a protective film
- silicone-free and free from hydrocarbons
- Replaces MPF furniture care, high-gloss care HGP and S68 polishing water

MRP; 500 ml Spray bottle

	Solvent-based stains Water-alcohol stains Waterborne stains							ains		
Application on kinds of wood	S 9800 Antique-Finish Stain	WN Wigranit® No Brushing	ICB vacolor Stain Spraying	S 9900 Spray and Brush Stain Brushing Spraying		AHB Aqua Wood Stain	ACB Aqua Creative Stain	APB Aqua Positive Stain	WB Wax Stain	ORF 19945 Kaligenbeize (Lye stain)
Maple			0		•	•	0	0	0	
Birch			0		•	•	0	0	0	
Pear tree			0		•	•	0	0	0	•
Beech			0		•	•	0	0	0	•
Oak	• 1	• 1	O ²	•	0	•	•	0	0	•
Alder			0		•	•	0	0	0	
Ash	• 1	• 1	0	•	0	•	•	0	0	
Spruce/fir							O 3	•	•	0
Chestnut	• 1		0		0	•	0	0	0	•
Pine							O 3	•	•	0
Cherry			0		•	•	0	0	0	•
Cork	0	0	0	0	0	•	0	0	0	
Larch							O 3	•	•	0
Limba	0		О		0	•	0	0	0	
Macore	• 1	• 1	O 2	•	0	•	•	0	0	0
Mahogany	• 1	• 1	O 2	•	0	•	•	0	0	0
MDF	0		0		•	•	•	0	0	
Walnut	• 1	• 1	O 2	•	0	•	•	0	0	0
OSB	•	•	0	•		•	•			0
Rosewood	0		0							
Ramin			0		0	•	0	0	0	
Elm	• 1	• 1	O 2	•	0	•	•	0	0	0
Bird's eye maple			0		•	•	0	0	0	•

 \bigcirc = possible \bigcirc = our recommendation 1 = emphasized pore 2 = flat pore 3 = only solid colours





Certificates

Certificates

Test standards are very important for products used for coatings. Test standards evidence the quality and particular properties of the certified products and therefore ensure the necessary safety. The occasionally high demands (chemical demands, abrasion resistance, flame resistance etc.) from clients, architects or even tenders can therefore be fulfilled.

All tests are exclusively performed on cured coatings.



DIN 4102 - standard applicable to Germany - Fire behaviour/low flammability General building inspectorate certificate [ABP - Allgemein bauaufsichtliches Prüfzeugnis]

This standard refers to building materials and elements for the public and private areas of a building (e.g. walls, roofs, interior fittings, stairs etc.). Applicability: paints that have a general building inspectorate certificate [ABP] may be used for building materials according to building regulation list A part 2 2015/2 edition. The certificate is required for the use of building elements in public buildings. The paints are subject to third-party inspection. Paints that are classed as low flammable under DIN 4102-B1 must be used on (according to DIN 4102-B1) permitted chipboard. including veneered chipboard, to satisfy test criteria. If used on other substrates, DIN 4102-B2 only is required for compliance. Any prescribed quantities must be satisfied in full. Fire behaviour under DIN 4102 part 1 is subdivided as

Building materials class A = non-combustible Building materials class B = combustible Building materials class B1 = low flammability Building materials class B2 = normal flammability Building materials class B3 = easily flammable



DIN EN 13501-1 - for Europe Applicable standard for reaction to fire/flame resistance

Classification of building products and con-struction techniques for buildings with regard to the reaction to fire (e.g., walls, ceilings, interior equipment, stairs, etc.). Applicable in all European countries. Especially for public buildings, such as airports, etc.

In order to fulfil the testing criteria, hardly inflammable varnishes/paints according to DIN EN 13501-1 must be applied on the substrates specified in the test certificate. Other substrates are not permitted. The specified application quantity must be met



Highly flammable according to Marine Equipment Directive MED 2014/90/EU

This standard refers to the interior finishing of ships. Flame resistance in shipbuilding according to the "International Convention for the Safety of Life at Sea". With the USCG approval, the "Agreement between the European Community and the United States of America on the mutual recognition of conformity for marine equipment" is recognized.

IMO – International Marine Organisation USCG - United States Coast Guard



EN 71-3 - European Standard - Migration of heavy metals Heavy metals/chemical elements (e.g., tests children's toys) DIN 53160-1/2 saliva and sweat fastness

EN 71-3 determines the migration of certain elements such as aluminium, arsenic, lead, chromium III and VI, cobalt, and mercury etc. Extraction is used to simulate a digestive process which provides information about the chemicals released. Evidence of extracted elements can be determined numerically. The limits of these hazardous materials must not be exceeded.

According to DIN 53160-1/2 saliva and sweat fastness, the colour fastness of articles for common use to artificial saliva and sweat is tested. The test is particularly suitable for articles that are intended to be taken into the mouth or come into contact with mucous membranes.



DIN 68861 Part 1 - Resistance of furniture surfaces: chemical stress

Stress groups - Classification: 1A = highest/most resistant group to 1F = least resistant group Twenty-four different test substances such as drinks, solvents, acids, household cleaning agents etc. are tested.



According to Part 2 - DIN 68861 - Resistance of furniture surfaces: Abrasion resistance

Test of the abrasion resistance of varnished/painted surfaces with the so-called Taber Ab-raser: measurement of revolutions up to 50 % rubbing through with defined sanding paper. 2A = highest/most resistant group to 2F = least resistant group



Testing for articles intended for use in contact with food

If paints are to be used for coatings on wooden surfaces, such as shop fittings. which can come into contact with food. these paints are to be tested in accordance with UNI EN 1186-5: 2003 with regard to overall migration into aqueous food simulants by cells.

Note: since paints for use in wood coatings are not covered specifically by the UNI EN 1186-05: 2003 standard, this is a voluntary and legally non-binding test modelled on the testing as usually conducted for this standard



Requirement for furniture surfaces in regards to their resistance to temperature changes

Resistance to temperature changes can be determined by two test procedures depending on requirements: Test cycle 1: immediate temperature change from -20°C to + 60°C Test cycle 2: temperature change including humidification from -20°C to + 60°C with 90% max. air humidity. A pass is granted if 25 cycles are performed without any visible damage to the paint surface.



Tox Control - certification for low-emissions furniture paint

Different harmful substances reacting with each other in enclosed spaces, even in small quantities, can give rise to symptoms such as headaches, poor concentration, and irritation of the respiratory tract. As many hazardous materials can originate from the furniture itself, the coating is tested on a neutral substrate in regards to emission behaviour. If the prescribed limits are satisfied, the coating is certified with Tox Control certification. The test criteria catalogue for furniture, accompanying parts, and cured coatings include the following main areas:

- TVOC = the sum of all volatile residual solvents (C₆-C₁₆) after 28 days
- SVOC = the sum of all volatile, long-chained residual solvents (C₁₆-C₂₂) after 28 days
- Cancerogenic substances
- terpenes
- aldehyde
- formaldehyde



Slip resistance DIN EN 16165:2021 and ASR A1.5/1,2

In this test, assessors wear test shoes with special rubber soles to inspect the tested flooring, which has been coated with motor oil. The inclination is increased from a horizontal state up to the acceptance angle. The mean overall acceptance angle is classified according to assessment groups R9 to R13.



CE marking

For Zweihorn® products provided with the compliance mark (Ü), CE marking can be requested for structural components such as parquet, stairs, etc. This compliance mark (Ü) is only awarded to building products (parquet varnishes, wood flooring products, coating material and glues), which meet the health protection requirements made by the DIBT in the technical specifications.



Seal of approval for health-conscious and ecoconscious building materials and furnishings

Institut für Baubiologie Rosenheim GmbH Seal of approval for health-conscious and ecoconscious building materials and furnishings. The seal is awarded to products, which ensure building-biologically acceptable living and, at the same time, protection of the environment.

Products (in alphabetical order)	DIN 4102	DN EN 13501-1	MED 2014/90/EU	EN 71-3 DIN 53160-1/2	DIN 68861/1B	DIN 68861/1C	DIN 68861/2	Food contact	DIN 68930	Tox Control	DIN EN 16165:2021	CE marking	IBR recommender
Crystallit® Filling and Insulating Primer	√												
Crystallit [®] High-Gloss Varnish	√	✓	✓	✓	✓			✓		✓			
Crystallit® Varnish	✓	✓	✓	✓	✓			✓	✓	✓			
Crystallit [®] Deep-Matt Varnish	✓	✓	✓	✓	✓			✓	✓	✓			
Diadur® Filling Primer	✓												
Diadur® Plus Varnish	✓			✓	✓			✓	✓				
Duritan® High-Gloss Varnish	✓		✓	✓	✓		√ 1		✓	✓			
Duocryl Filling and Insulating Primer	✓								✓				
Duocryl Parquet Varnish	✓						√ 1			✓	√		
Duocryl Varnish	√		✓	✓	✓			✓	✓		√		
Duocryl High-Gloss Varnish	✓			✓	✓			✓	✓				
Naturtrend Hard Oil				✓		✓					√	✓	
Naturtrend Hard Wax Oil				✓		✓				✓	√	✓	✓
Naturtrend Wood Design Oil						√ 1							
Naturtrend Project Oil				✓		✓					√	✓	
Plastic Varnish Insulating Varnish			✓		√ 1								
Purolit-Varnish	✓			✓		✓		✓					
Purolit Top-Varnish					✓								
Super Duroffix® Brightening Varnish						✓							
Super Duroffix® Varnish						✓							
Unocryl Parquet Primer	✓												
Unocryl Parquet Varnish							√ 1				√		
Unolit Varnish				✓	✓	✓							
Variocryl® Color Paint	✓	✓		✓	✓	✓							
Variocryl® Color Effect Paint	√			√ 3									
Variocryl® Varnish	✓	✓		✓	✓	✓		✓	✓	✓			
Variocryl® Stair Varnish	✓										√		
Variofill	✓	✓	✓						✓				
Wigranit® Insulating Filler	✓	✓	✓						✓	✓			
Wigranit® Novacolor Paint	✓	✓	✓	✓	✓					✓			
Wigranit® Novacolor Effect Paint	✓			√ 2						✓			
Wigranit® Novacolor High-Gloss Paint	✓				√								
=applied for													

1=applied for

2=without WNC/Gold and WNC/MB

3=without VCC/brilliantgold and VCC/MB



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