

FIELDS OF APPLICATION

A sealer and finish varnish for all interior wood surfaces, particularly for floor surfaces, providing high traffic durability. LowCer Varnish Satin is an impregnating varnish, unlike most varnishes which are directly applied to a wood surface, LowCer Varnish Satin penetrates the cellulose fibers of all types of woods, deciduous and conifer, thus creating a permanent and long lasting sealer and protector for wood surfaces. LowCer Varnish Satin is oil proof and highly water resistant.

LowCer Varnish Satin diluted according to instructions can be diluted to use as a wood conditioner, pre-sealer, and at any dilution can be tinted lightly or darkly depending on desired color finish. LowCer Varnish Satin permits excellent touch-up capability for repairs.

LowCer Varnish Satin can be applied to wood and slaked lime plasters, lime wash, and porous materials where a durable and washable surface is required. Product is non-yellowing.

PRODUCT FEATURES

An Acryl-polyurethane water based varnish that contains very low solvent content, features high scratch resistance, is fast drying, oil proof and highly water resistant. LowCer Varnish Satin surpasses professional requirements for use in high traffic conditions for floor finishes, high quality cabinet finishes, is non yellowing, and easy to apply using spray, brushes, rollers, or floor wand applications. LowCer Varnish Satin is a mono component, concentrated product, which is diluted with water for application, providing excellent coverage with 2 coats. Coverage per square foot is above average typical of most varnishes. LowCer Varnish Satin can be used residentially and commercially for wet sink areas, wet bars, on any type of wood product, without sustaining water damage or wood discoloration by water penetration.

LowCer Varnish Satin can be diluted with water for multiple use functions and can be tinted with natural oxide earth tints and 0% VOC colorants to offer esthetic color options with minimal impact to the environment and to provide toxic free air quality for indoors. LowCer Varnish Satin is an environmental low impact paint material as described in the Eco Category description, and is ideal for use in homes, schools, hospitals and work sensitive areas.

TYPE OF PRODUCT

Surface finishes varnish classification UNI 8681, in water emulsion base, mono-component and air drying, acryl-polyurethane.

SHEEN FINISH

Opaque

COLOR

Transparent Base. Color tint up to 8% max with approved tints. Custom color tints matching are available.

TECHNICAL DATA

CRITERIA	INT. STANDARD	VALUE	UNIT
TVOC & VOC (including tint pigments)	2004/42/CE: Max. Value 130 g/l (2010), ISO 11890-2	15	g/l
Surface Retention Smog/Dirt	EN 10795	3	Very Low
Damp Abrasion Resistant (Gardner Cycles)	UNI 10560	≥ 5000	Excellent
Drying Time at Low Temperature	UNI 10793	Yes	-
Application Quality	UNI 10794	Excellent	-
pH Value	DIN 19266	8 - 8.5	-
Alkaline Resistance	UNI 10795	Yes	-
Specific Gravity (23°C)	EN ISO 2811-2	1.03	g/ml
Gloss Level	UNI EN ISO 2813	22	Semi Opaque
Reaction to Fire	EN 13501-1:2002	A1	Incombustible
Toxicity	EN 13501-1:2002	Non-Toxic	-
Vapor Absorption	UNI 927-4	35%	RMPA
Vapor Release	UNI 927-4	70%	DMP
Vapor Diffusion from Surface	UNI 927-5	> 140	g/m²
Scratch Resistance	DIN 68861/81 P4	4	N
Surface Hardness	DIN 68861	800	RA (Cycles)
Resistance to Chemical Agents	ONORM A 1605-15 (1B1)	Good	-
Child Toy and Furniture Safe	EN 71	Yes	Complies
Heavy Metal Content Lead and Chrome	2002/95/CE	None	-
Accelerated Aging Resistance	EN 927-3	Good	-
Formaldehyde	-	0%*	Low Content
APEO (Alkyl Phenol Ethoxylates)	-	0%*	Low Content
PEG (Polyethylene Glycol)	-	0%*	Low Content
PG (Propylene Glycol)	-	0%*	Low Content
Biocides	-	0%*	-

Does not contain chemicals that can aggravate or cause asthma, see NIH Asthma Report 2012.

*** This product contains no substances classified as hazardous to health or the environment pursuant to the provision of Directives 67/548 CEE and regulation (CE) 1272/2008 (CLP) and subsequent amendments.**

APPLICATION CYCLE INSTRUCTIONS

BRUSH AND ROLLER APPLICATIONS

1ST COAT: Dilute LowCer Varnish Satin with 40% water, maximum 4 liters of water per one (1) 10-liter bucket of LowCer Varnish Satin. Apply varnish with a



high quality brush in an even and constant pattern, so that a perfect coverage is achieved. Allow to dry for at least 8 hours before applying 2nd coat. Wash paint brushes immediately with soap and water after completion of use. It is advised not to use rollers for high quality finishes, both for floors and for cabinets. A floor wand can be used for applications on floors but it is suggested to be used as 3rd coat only to provide a more even finish if required. Allow LowCer Varnish Satin to dry naturally, do not use dryers, heat guns, or heat lamps to force dry product.

2ND COAT: Dilute LowCer Varnish Satin with 20% water, maximum 2 liters of water to one (1) 10-liter bucket. Apply varnish in an even and constant pattern, so that a perfect coverage is achieved. For wet bars, under-counter sinks, and countertops it is suggested to apply 1 additional coat (3rd coat) of 20% diluted LowCer Varnish Satin.

When using LowCer Varnish Satin as a sealer/consolidator, product can be diluted from 100 – 300% (1 – 3 liters water added per 1 liter of varnish) depending on application needs. When applying LowCer Stain, BioCalce Classico, BioDomus, and TerraMare Velatura, on wood surfaces, the sealer dilution permits successive applications of different products to create unusual architectural/designer finishes. Brush application should be used on floor and cabinet finishes, or roller applications can be used on large flat surfaces. Always test surface finish sheen and texture when using a roller application. Use a very short nap roller height (Omega roller cover Velor or Mohair, 4 – 6 mm height) rolling in a even and consistent manner.

PAINT SPRAYERS

1ST COAT: To provide sufficient mil thickness and protection from oils and water, apply 2 coats with a brush on all cabinet finishes (see brush instructions above), lightly sanding or steel wool to remove undesirable textures, before applying a spray finish. Remove all dust from surfaces carefully, using a tack cloth or soft rag prior to applying LowCer Varnish Satin with a sprayer. Spray at an even distance and in a consistent pattern to provide a professional finish.

2ND COAT: Application with a 2nd coat is not necessary except in the case to increase the level of the quality of the finish. Maintenance of spray equipment is a priority to create excellent finishes.

Spray tip usage Apply paint product with a # 0.011 – 0.013 mm size spray tip for airless sprayers and compressor spray guns. Always use new spray tips for starting a paint job for best results. Test spray capacity of spray tip before starting production work. This will also conserve the amount of paint necessary to complete the job.

MIXING VARNISH & WATER

Most of our paint and varnish formulas are concentrated and require water to be added to them for proper use. This process means we can sell more coverage in an economic package that decreases the cost for transport, reduces the carbon footprint, helping the your pocket book and the environment.

Mix Varnish And Water With An Electric Drill And Paint Paddle For Large Quantities At The Lowest Velocity, Or Mix Well By Hand! If Water Is Sitting On The Top Of Your Mixture, The Paint Is Not Properly Mixed!

TOOLS

Apply with a high quality brush, roller, or with an appropriate sprayer and sprayer tip. New sprayer tips should be used to prevent product waste and provided for a more perfect finish. Neoprene type floor wands should be used for best results.

DRYING TIME

Allow a drying time between coats of at least 8 hours for floors, and for applying multiple layers with different materials, allow 8 hours per coat, per material. For application on furniture and cabinets, drying time will depend on size of area painted, humidity, heat, cold; allow 4 hours minimum, test for dryness before applying a 2nd coat. Optimum time allowance is 8 hours between coats.

LowCer Varnish Satin is usually tack free in 2 – 4 hours depending on humidity and temperature. With lower temperature and humidity more time may be needed. If sanding is required between coats, allow 24 hours of drying prior to sanding. When possible, allow 72 hours to permit proper handling and transport after application of final coat. Allow 14 days to achieve maximum durability and

strength. Avoid exposure to water and ice for at least 7 days, and great care must be given to avoid over extended exposure to water until 14 days has passed. Ideal temperature for application is between 18°C / 60°F – 29°C / 85°F.

CONSUMPTION/COVERAGE

Approximately 2,000 ft² / 186 mt² average per 10 liters bucket, 1 coat, diluted 20 – 40% when applying 2 coats. Approximately 200 ft² / 18.7 mt² average per 1 liter bucket, 1 coat, diluted 20 – 40% when applying 2 coats. Approximate US Gallon equivalent coverage 756 ft² for 1 coat coverage. Determine exact consumption by performing a test on the surface to be treated.

PACKAGING

Plastic buckets of 1, 5 and 10 liters.

APPLICATION CYCLES ON DIFFERENT TYPES OF BASES

Make sure base is solid, dry and well cleaned, prepared with skill. It is recommended to observe the rule VOB DIN 18 363, Part C, paragraph 3.

VIRGIN WOOD FLOORS

Wood floors should be pre-sanded as required by a professional floor finisher. If a stain color is desired, apply LowCer Stain to wood according to instructions, and any additional applications as may be required such as lime wash or lime consolidator. Allow all pre-varnish finishes to dry 8 hours before application of LowCer Varnish Satin. Apply 1st and 2nd coat according to instructions indicated above.

EXISTING VARNISHED FLOORS

LowCer Varnish Satin cannot be applied over previously varnished floors except in the case where EcoCer Varnishes have been applied previously. For re-coats applied after installation of finished floors, it is advised to floor screen the finish and apply another coat diluted at 20%. EcoCer Varnish is formulated to be applied on clean, sanded, ready-to-stain wood. Wood floors should be presanded as required by a professional floor finisher. If a stain color is desired, apply LowCer Stain to wood according to instructions, and any additional applications as may be required such as lime wash or lime consolidator. Allow all pre-varnish finishes to dry 8 hours before application of LowCer Varnish Satin. Apply 1st and 2nd coat according to instructions indicated above.

NEW WOOD CABINETS & FURNITURE

Solid wood cabinets and furniture should be pre-sanded as required by a professional finisher. If a stain color is desired, apply LowCer Stain to wood according to instructions, and any additional applications as may be required such as lime wash or consolidator. Allow all pre-varnish finishes to dry 8 hours before application of LowCer Varnish Satin. Apply 1st and 2nd coat according to instructions indicated above both for brush and paint sprayers. Cabinet and furniture finishes require at least two (2)-coats of LowCer Varnish Satin be applied by brush to provide sufficient mil thickness for protection against oils and water. A 3rd coat may be sprayed to create a smooth luster finish.

VENEERED WOOD

LowCer Varnish Satin is ideal for solid wood but depending on the type of veneer, what type of glues and or veneer system used, the type of base the veneer was attached to, may be problematic for the penetration of EcoCer Varnishes into veneered wood surfaces. To facilitate proper penetration on wood veneers, dilute LowCer Varnish Satin with water 100%, and allow drying. Then follow instructions applying EcoCer Varnish diluted 40% with water, 2nd coat, and then 20% water, for the 3rd coat. Perform several tests to verify adherence and durability prior to beginning commencement of the application of your finishes. Some wood veneer systems will not permit penetration of varnish.

PAINTED FINISHES

LowCer Varnish Satin can be applied to new water-based paints, providing that careful tests have been performed to assure adherence to such materials. All pre-painted finishes on wood require that they be lightly sanded so as permit penetration of LowCer Varnish Satin into the surface pores of the paint. These

types of applications do not guarantee that sufficient adherence will provide high traffic resistance as compared when applied to sanded floors. When applying LowCer Varnish Satin to porous painted materials such as BioCalce Classico, BioDomus, and TerraMare Velatura, product must be diluted appropriately to assure proper penetration. These types of finishes are technically difficult and require that applicator contact distributor to acquire training and correct application techniques.

SLAKED LIME PLASTERS & STUCCOS

LowCer Varnish Satin can be applied to slaked lime plasters and stuccos like BioCement GF, BioMarmorino Satin. This method of application is suggested only for commercial environments, or for kitchen and bathroom areas where water, grease and oils may stain plaster finishes. LowCer Varnish Satin should be diluted 200% with water and applied by roller or spray paint. When using a roller application it may be required to pass over the freshly painted surfaces with a fine plaster trowel to flatten any roller nap when on smooth plaster surfaces. It is suggested to apply only one (1)-coat of diluted product on medium smooth and rough plaster surfaces, products. For very smooth surfaces up to two (2)-coats is suggested. Always test product and application prior to applying LowCer Varnish Satin. EcoCer Varnishes will slightly enhance color tonality by 10% and will leave a slight sheen on mid smooth and rough plaster surfaces using one (1)-coat, and two (2)-coats will leave a smooth luster finish. Always pre-test plaster finishes carefully on sample boards carefully before using this method!

DECAYING OR CRUMBLING STUCCOS OR POWDERY SURFACES

Chalking surfaces, which could prevent the proper anchoring of the base coating must be removed and pressure washed. Apply Potassium Silicate Concentrate, diluted 100% with water (1:1) on all damaged surfaces, applying 2 – 3 coats in rapid succession and allow to dry for at least 12 hours.

Apply 1 coat of EcoForte Consolidator diluted 50% with water, and allow to dry for at least 12 hours. Apply 2 coats of LowCer Varnish Satin according to instructions.

STORAGE

Store in a cool, dry and protected from frost. Close the open containers with care. Store liquids only in plastic.

WARNING!

Do not apply any products in direct exposure to strong/hot sunlight, rain, high humidity (mist) or in the presence of strong wind. Beware of the danger of frost overnight. If applied by roller or sprayer, protect surrounding surfaces as necessary. Protect eyes and skin from splashes of paint. Cover glass, ceramic, natural stone, brick, metal, wood, painted surfaces and glazed tiles. Clean affected areas immediately with water. Prominent elements of the building (cornices, parapets, etc..) should be treated with skill, covering flashings, gutters, copper coatings, etc. ...

Do not work in air temperature lower than 10°C / 50°F. Clean work tools with water immediately after use. Keep out of reach of children. In case of contact with eyes and skin, wash immediately with plenty of water. In cases of consumption, consult a Doctor or call the CDC Poison Center (see Safety Data Sheet).

AVOID USING THESE CLEANING PRODUCTS!

Aggressive cleaners can damage Acryl-polyurethane Waterborne Varnishes. Do not use vinegar, lemon, or orange based degreaser cleaning products, Clorox brand Formula 409 products, or Clorox brand toilet bowl cleaners, or similar type products, which also contain degreaser capabilities, as these types of products will permanently damage or remove waterborne floor finishes, stains and varnishes. Commercial finishers and floor applicators have requested that Zep Industries cleaning products be included as their cleaning products will damage Acryl-Polyurethane Varnishes. For further information about these products it is advised to research on the internet about how these products can affect your wood product finishes and their environmental impact in general.

Professional floor finishers recommend to clean water based varnishes, non citric, plant based cleaning products, or Bona Hardwood Floor Cleaner for best results.

WATER CONTAMINATION HAZARD

CLASS 1

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of information required by the CPR, and it is classified as a non-hazardous material.

PRODUCT CONTAMINATION HAZARD

CODE CER / NORMATIVE EAC / Decision commuted by the Commission n. 2000/532/CE

NOT DANGEROUS

The directive 75/442/CEE, 08 01 production, disposal, formulation, supply, use, and removal of paints and varnishes: 10 13 04 for removal of paints and varnishes; 10 13 04 disposal of lime and hydrated lime products.

DISPOSAL

Do not enter product in its original concentration into drains or open waters. Do not store at public waste disposal sites. In case of conduction into adapted biological purification plants no disturbances need be expected. The preparation has been estimated by conventional method (calculated-procedure) of EG directive 1999/45/EG) and is classified as non-hazardous for the environment.

Dispose according to local regulations. Empty cans should be disposed of according to local regulations; plastic buckets are 100% PBS, NO. 5, approved for food storage; 100% recyclable if cleaned thoroughly prior to recycling.

ADDITIONAL INFORMATION

This Technical Sheet lists data collected on the basis of technique and experience. Given the multiplicity of use of the product they cannot be binding and the user cannot refrain from using common sense and experience for the individual case. This information shall not constitute any legal obligation and no obligation from the seller or point of purchase, or any agreements inferred by employees who sale this product. Insurance or guarantees issued by our employees or employees should always be confirmed separately in writing. Any information about product adaptability and use of the product, must be verified by user prior to purchase. Check the exact consumption of product for the surface where product may be applied to determine amount of products needed. The color matching must be verified by the user before starting work.

MANUFACTURER

ZETACOLOR SRL, Via Pistoiese 323, 50010 San Angelo a Lecore, FI, Italia