

FIELDS OF APPLICATION

Water based penetrating stain with slight sealer protective features for all interior/ exterior wood surfaces. LowCer Stain is a custom tinting formula base, to permit correct color correction on application for any type of wood species. Product is tinted with earth oxide tints for permanent color stability with excellent UV protection and environmental durability. LowCer Stain penetrates the cellulose fibers of all types of woods, deciduous and conifer, thus creating luminous color depth and intensity, not typical for most water-based stains.

LowCer Stain diluted according to instructions can be mixed with LowCer Varnish, Matte, Satin or Exterior to work as a wood conditioner, or pre-sealer, to assist in achieving color depth and even stain applications. LowCer Stain permits excellent touch-up capability for repairs.

LowCer Stain can be applied to porous surfaces including slaked lime plasters and lime wash, for special decorative effects applied to wood. Product is non-yellowing.

PRODUCT FEATURES

An acrylic water based stain that contains very low solvent content, providing low VOC content, is fast drying, with excellent color penetration. LowCer Stain is a professional use product for floor finishes, high quality cabinet finishes, is concentrated and non-yellowing. Application method is typically by brush, and in light color, higher dilutions, may be applied by sprayers. LowCer Stain is a mono component, concentrated product, which is diluted with water for application, providing excellent coverage with 2 - 3 coats. Coverage per square foot is average typical for most water-based stains. LowCer Stain can be used residentially and commercially for wet sink and bar areas, on any type of wood product, without sustaining wood discoloration by water penetration if LowCer Stain is properly sealed and protected from exposure to water. For low VOC content varnish with excellent resistance to water damages, use LowCer Varnish Matte or Satin varnishes.

LowCer Stain 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 Stain is an environmental low impact paint material as described in the Eco Category description. This product is ideal for use in homes, schools, and hospitals and work sensitive areas.

TYPE OF PRODUCT

Water emulsion base, mono-component and air-drying. Made with acrylic stabilizers.

SHEEN FINISH

Flat

COLOR

Transparent Base. Color tint up to 30% 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 Value 130 g/l (2010), ISO 11890-2	24.4	g/l
Surface Retention to Smog/Dirt	EN 10795	> 9	Medium
Drying Time at Low Temperature	UNI 10793	Yes	-
Vapor Absorption	EN 927-4	48%	RMPPA
Vapor Release	EN 927-4	48%	DMP
Vapor Diffusion from Surface	EN 927-5	> 170	gr/m ²
Application Quality	UNI 10794	Excellent	-
pH Value	DIN 19266	8 - 8.5	-
Alkaline Resistance	UNI 10795	NO	-
Specific Gravity (23°C)	EN ISO 2811-2	1.05	g/ml
Gloss Level	EN ISO 2813	< 30 Semi-Gloss	Gloss
Fire Resistance Class	EN 13501-1:2002	A1	Incombustible
Toxicity	EN 13501-1:2002	Non-Toxic	-
Scratch Resistance	DIN 68861/81 P4	2.0	-
Surface Hardness	DIN 68861	600	RA (cycle)
Resistance to Chemical Agents	ONORM A 1605-15 (1B1)	Good	-
Child Toy and Furniture Safe	EN 71	Yes	-
Heavy Metal Content Lead and Chrome	2002/95/CE	Free	-
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 APPLICATIONS | SIMPLE INSTRUCTIONS

1ST COAT : Apply LowCer Varnish as a conditioner prior to applying 1st and 2nd coat stain color (see BRUSH & SPRAY APPLICATION notes). Dilute LowCer Stain with 10% – 50% average, maximum 150% water, per one (1)-liter bucket of LowCer Stain. Always wet wood surfaces with sufficient water to allow stain to be applied on a damp surface, not a wet surface. Apply stain with a high quality brush in an even and constant pattern, and remove product with absorbent cotton cloths to achieve the desired color depth. Water based wood stain must be removed typically within 2 – 3 minutes, depending on existing humidity and temperature. Regardless, stain must be removed prior to any surface drying that occurs or this will require the adjustment or removal of the stain application by aggressive means. Allow to dry for at least 4 hours before applying 2nd coat. Wash paint brushes immediately with soap and water after completion of use.

2ND & 3RD COAT : Repeat steps for 1st coat application as necessary to achieve desired color depth.

PAINT SPRAYERS | SIMPLE INSTRUCTIONS

1ST COAT : Follow application instructions as indicated above in the **BRUSH APPLICATIONS**. Instead of using a brush for application, a fine spray application may be possible when using light color stain applications. Sprayers cannot be used to achieve dark color staining.

2ND COAT : Follow instructions for 1st coat above.

SPRAY TIP USAGE : LowCer Varnish can be applied using an airless sprayer. Apply stain product with a # 0.011 – 0.013 size spray tip. Always use new spray tips for starting a paint job for best results. This will also conserve the amount of paint necessary to complete the job.

BRUSH & SPRAY APPLICATIONS

Before starting application of stain, perform tests on the same wood sample and species type that has been used for the project or installed on the construction site. Always test stain coverage with minimal water dilution prior to increasing dilution. Several tests will be required to assure that diluted stain will match to 'control sample'. To ensure even coverage and absorption it is advised to apply tinted conditioner to your wood as your 1st Coat application; dilute LowCer Varnish 300% with water (3 liters water), then adding 25% – 50% LowCer Stain tinted product (250ml – 500ml stain), mixing into the diluted varnish formula. This dilution helps create an ideal wood conditioner for applying even stain finishes, especially dark stain colors, and helps reduce the number of stain coats required to achieve the 'control sample'. See **CONDITIONER SOLUTION MIX** below for easy view of formula.

MIXING

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 economical package that decreases the cost for transport, reduces the carbon footprint, helping the your pocket book and the environment.

Mix stain and water carefully with a paint paddle.

DRYING TIME

Allow a drying time between coats of at least 4 hours. With lower temperature and humidity more time may be needed. Allow at least hours 8 – 12 hours drying time before applying additional coats of lime paint, sealers, or varnish.

TOOLS

Apply LowCer Stain with a brush, 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.

CONSUMPTION/COVERAGE

Approximately 2,600 ft² / 240 m² – 4,000 ft² / 370 m² per 10 liters bucket diluted with 10% – 50% water dilution. Determine exact consumption by performing a test on the surface to be treated.



PACKAGING

Plastic buckets of 1, 2.5 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.

FLOORS

STAIN & VARNISH

Prior to each application of LowCer Stain on wood, conditioner or diluted stain, the wood surface to be stained must always be pre-wetted with water; just enough to create a wet/damp surface. The dampened area should not exceed the capacity for the applicator to apply the stain within a short time period.

APPLYING STAIN

Pre-wet floors prior to applying stain, even if a conditioner has been applied. A simple solution is to damp mop; use wet/dampened rags laid flat on the floor and use a floor wand or damp sponge mop, placed in the center of the rag, applying slight pressure, move the dampened rags over the surface of the wood to evenly moisten the surface. Using a simple hand pump garden sprayer is another excellent method to dampen wood. Remove excess water using a damp mop and rags as described above or with just damp rags. Applying excessive water will create uneven staining and/or blotching.

Always apply stain in runs of approximately 2 – 3 feet wide, or as can be reached by hand and wiped off without placing knee pads or hands on the stained area that is to be wiped. Always slightly over-wet the area beyond what boards will be stained so as to remove any stain that may fall beyond the determined area to be stained. Staining floors can only be applied by brush. Begin to apply stain with a brush only, on an area as is possible to apply and wipe off within a very short time period; not more than 2 – 3 minutes maximum. Always wipe stain off moving in the direction of the wood grain. Wiping must be carefully done using rags to remove excess stain. It is imperative to avoid over-lapping with color stain. To help control overlaps using a water based stain, it is recommended to wet both the unstained wood and the just previously stained wood with water for each run just completed. It should be understood that previously stained wood boards require a few minutes to permit the stain to dry, before applying water again. Usually, finishing a run from one end of the room to the other, before moving back to the starting point is enough time to permit rewetting of the stained boards. When applying water onto newly stained areas, overlap with water just enough to permit stain overlapping being applied by brush, to be removed. Do not re-wet the entire just stained. To match the stain color density on the previously stained boards, or runs, and to remove overlaps, use a series of rags; a rag completely damp with stain, a rag partially damp with stain, and a clean rag. These series of types of rags, will permit control to adjust color penetration and color evenness when staining the wood. Wipe off with light but constant pressure to manipulate the stain to achieve an even color, and using a series of all those rags that will best create the desired results.

Applying stain on a wood floor is a group project that requires usually 3 persons minimum. All 3 persons need to work in tandem and closely together, in close proximity, moving at a very fast pace. Speed is essential to wetting the wood, applying the stain, and wiping off the stain.

Please determine your dilutions for color depth by testing on same wood type and color prior to begin applying stain. Water based stains will always need to be diluted with water, at least 10% per volume. Multiple stain colors can be used to achieve rich and dynamic coloration. Allow each stain color to completely dry before applying a new stain color.

Once the desired tone or color stain has been achieved, which may require 1 coat conditioner, 1 coat of stain for light colors, 2 coats of stain for dark colors, allow the stained floors to completely dry for at least 8 – 12 hours prior to applying any additional treatments including lime wash, BioCalce Classico, or LowCer Varnish.

STAIN & LIME WASH

Staining wood and applying lime wash to create aged or ceruse finishes is a technique that was developed by ROMA in 2009 to permit on-site application of ceruse finishes without the need to apply pre-finished flooring systems. This permits construction schedules to not be affected by the installation of pre-finished floor systems that can easily be damaged during construction processes.

Apply stain as indicated in section **STAIN & VARNISH**.

APPLYING LIME PAINT

Dilute BioCalce Classico, tinted lime paint, diluted with water 120% and mix thoroughly. Apply the lime wash with a brush, following the direction of the grain, and allow floor to completely dry for at least 8 – 12 hours.

Remove the lime wash using a buffer with a Maroon pad, so as to completely expose the wood grain, removing all excess lime products. Once the room has been buffed, vacuum immediately all excess lime dust so that there is not created excessive amounts of dust to be spread throughout the other floors or house. It is suggested to vacuum several times to remove excess dust. After vacuuming it is suggested to use lightly dampened rags and gently pass over the floor, so as to remove small particles of lime dust. Do not over-wipe or use excessive water during this process so not to damage or remove excessive amounts of Limewash that remain in the grain of the wood.

Lime paints or any alkaline finish material cannot be painted with any type of varnish without being consolidated! All lime treated floors or cabinets must be treated with TerraMare Velatura before LowCer Varnish can be applied.

APPLYING CONSOLIDATOR

TerraMare Velatura is a silossanic consolidator ideal for application on lime products that will be sealed with LowCer Varnish. TerraMare Velatura also acts as a decorative glaze that can be color tinted. The result is that using stain, Limewash, tinted consolidator, and tinted varnish, the options are unlimited to create color hues and tone with unlimited richness and depth for wood finishes.

Pre-dilute the consolidator with water, 300% – 550% by volume, 1 part product / 3 – 5.5 liters water. Apply the consolidator with a brush covering an area that can be applied and removed within a maximum of 3-5 minutes, exactly like the application and removal of stain for 1st and 2nd coats as indicated above. Once a determined area has been covered, remove the excess consolidator with a damp rag, moving always in the direction of the wood grain. After 2 – 3 pulls with a clean rag, working within arm's length, turning the rag over often to a new side, rinsing and changing rags as needed, remove the amount of glaze as needed to achieve visual effect desired. Rinse the rags out as often needed, thoroughly, and continue the process to wipe off TerraMare Velatura, not allowing the consolidator to dry prior to removal of all excess material. For less glazing effect, repeat the process a 2nd time so that very little hazing is visible using only a clean, unused rag.

As with stain coloring, overlaps of consolidator from one board to another will appear very visible after drying, and care must be given to remove overlaps with a clean rag.

After drying, approximately 1 – 2 hours, inspect for overlaps from consolidator, and remove them during this time period by hand, using a maroon pad or green pad, sponge, and/or a rag, so as to create an even effect for coverage. Failure to remove consolidator within the time limit specified will result in the overlap to be permanent, and will prove to be very difficult to remove glazing without the risk of causing damage to the stain color or lime paint finish underneath. Allow TerraMare Velatura to completely dry for at least 8 – 12 hours before commencing with application of LowCer Varnish Matte or Satin varnishes.

CABINETS & FURNITURE

Use the same application methods as described above for floors. Sponge mops or wands cannot be used to finish cabinets. Cabinets and furniture require special attention when applying stains, and all applications and removals must be done strictly by hand. Use sprayers for stain applications only after sample testing has been performed to determine if this method will be sufficient to create the stain color and effect desired.

POSTS & BEAMS

Use the same application methods as described above for floors. Sponge mops or wands cannot be used to finish posts and beams. Large wood beams require

special attention when applying stains, and all applications and removals must be done strictly by hand. Use sprayers for stain applications only after sample testing has been performed to determine if this method will be sufficient to create the stain color and effect desired.

DOORS, WINDOWS & TRIM

Use the same application methods as described above for floors. Sponge mops or wands cannot be used to doors, windows or trim; these require special attention when applying stains, and all applications and removals must be done strictly by hand. Use sprayers for stain applications only after sample testing has been performed to determine if this method will be sufficient to create the stain color and effect desired.

CONDITIONER SOLUTION MIX

1 liter of varnish = 1000 ml of product

Add 250 ml – 500 ml of Stain and mix well together.

Add 3 liters of water to the mixed product, and mix well.

Total product volume 4.25 – 4.5 liters

4.25 liter of product will cover approximately about 600ft² – 800ft² of floor.

This formula can be adjusted up or down in quantity, as long as the ratios of varnish, stain, and water remain constant.

STORAGE

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

WARNING!

Do not apply any products in direct exposure to strong/hot sunlight, rain, mist, high humidity (> 80%), at dew-point formation, or in the presence of strong wind. Beware of the danger of frost overnight. If any products are applied by sprayer, protect surrounding surfaces as necessary. Cover glass, ceramic, natural stone, brick, metal, 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 8°C / 46°F and not above 31°C / 88°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).

PROTECT EYES FROM SPLASHES OF LIME PAINT OR PLASTER

In case of contact with eyes, wash immediately with plenty of water and/or a saline solution. Always keep a good supply of saline solution for eyes and use abundant amounts to wash eyes. Do not rub eyelids or physically touch your cornea or surrounding area prior to and during washing. Consult a Doctor immediately in cases of irritation or severe burning sensation. In cases of consumption, consult a Doctor or call the CDC Poison Center (see Safety Data Sheet). Keep out of reach of children.

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 user must verify the color matching before starting work.**

MANUFACTURER

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