BEECK Undercoat

White matt linseed oil base coat for wood and ferrous metal, for interior and exterior use

1. Product Properties

Opaque white, lightly filling high solid undercoat for lacquering wood, wood-based materials and ferrous metals in interior and exterior areas. Also as an intermediate bonding agent coat on clean, firm old oil and alkyd resin-based coats. Diffusible, low tension and highly adherent. Further treatment with BEECK Exterior Stand Oil Paint for outdoor use or BEECK Interior Stand Oil Paint for indoor use. As a stand oil basecoat, BEECK Undercoat contains vegetable oils, which absorb oxygen on drying and interlink to form a hard elastic and water-repellent film. Pore deep anchoring due to "creepable", low molecular linseed oil enables optimum adhesion on a large number of substrates, does not tend to flake off even under intense weathering. Also suitable for dimensionally unstable woods of listed building conservation.

1.1. Composition

- Classic, “lean” linseed oil undercoat made from siccative refined linseed oil, vegetable stand oils and tree resins
- Dissolved in readily penetrating essential oils and aromatic compound-free solvents
- Opaquely white pigmented with titanium dioxide
- Highly filled with talc, chalk and silicic acid
- Free from synthetic resins, plasticisers, biocides and preservatives

1.2. Technical properties

1.2.1. Overview

- For use on interior and exterior surfaces
- Highly adherent on diverse substrates
- Low tension, does not tend to flake off
- Can be coated over practically an unlimited number of times
- Open-pored, diffusible and sorbable
- High yielding, easy-to-use high solid
- Traditional formulas suitable for listed buildings

1.2.2. Important building physics characteristics

Parameter	*Value*	*Conformity*
Density $_{20°C}$:	1.36 kg / L	
Viscosity:	approx. 140 s 3 mm flow cup to	ISO 2431
s_d value (H_2O):	< 0.50 m	
Gloss level at 85°:	matt	EN ISO 2813
Flash point:	> 61°C	
VOC content (max.):	300 g / L	ChemVOCFarbV Cat. A / d
Solids content:	approx. 77 % (high solid)	

1.2.3. Colour

White. If used with full colour or tinted topcoat, can be tinted with up to 20 % maximum of the corresponding coloured lacquer.

2. Use

2.1. Substrate requirements

- The substrate must be clean, dry, firm and stable and must be free from efflorescent, discolouring, adhesion-impairing and/or drying-delaying substances.
- Ensure constructive wood preservation and wood quality free from blue stain, match chemical wood preservation to DIN 68800 Part 3 with coating system and resistance class.
- Bright ferrous metal or steel, suitable for corrosivity categories C1 – C3 to EN ISO 12944-2. Not suitable for zinc coated sheet steel, anodic coatings and non-ferrous metals.

2.2. Brief information on the standard system

- Prime raw wood in exterior (e.g. windows) with BEECK Oil Primer, for interior (e.g. furniture) with BEECK Wood Primer. Prime ferrous metals with BEECK Corrosion Protection Primer. Clean and sand / grind the surface of firm old coatings.
- Intermediate coat with BEECK Undercoat.
- Wait for at least 24 hours before applying subsequent coats of BEECK Exterior Stand Oil Paint or BEECK Interior Stand Oil Paint.

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2.3. Substrate and preparatory treatment

- ***Wood:***
  Sand down absorbent, raw or non film-forming impregnated wood and prime with BEECK Oil Primer (for exterior! use BEECK Wood Primer instead for interior). Apply thick, saturating coat. Completely sand off crumbling, weathered wood that has turned grey, or replace it. Maximum wood moisture for softwood 15 %, for hardwood 12 %. Wash off grease, resin and wax thoroughly with BEECK Lacquer Thinner. Resin-rich exterior wood (e.g. larch) tends to resin flux in the heat; take into account on the south side of buildings. Always try out on a test area of oak (tannic acid!) and tropical wood species (discolouring, drying delaying constituents!) as well as wood based materials beforehand. Pay particular attention to suitability for exterior use and the relevant coating guidelines of the supplier. Prime the rear of exterior panelling as well due to warpage if moisture is absorbed. Ensure back ventilation. Remove weathered, cracked, loose and flaking old lacquer, acrylic or synthetic resin-based coats pore deep by sanding down, blast cleaning or stripping. Remove stripper residues, pore-deep. Thoroughly sand down firmly adherent, firm oil and alkyd resin coatings and if necessary remove with caustic lye. Directly followed by further treatment with BEECK Undercoat. Only coat rough, absorbent wood with BEECK Oil Primer / Wood Primer. Prime structural timber and dimensionally stable structural members on all sides before installation and additionally precoat once with BEECK Undercoat.
- ***Glass rebates and sealants (windows!):***
  Do not paint over elastic sealants. Limit paint coat to 1 mm on the sealant. Paint over plastic sealants, if provided for by the manufacturer. Try out on a test area due to compatibility. Allow hardened sealants, e.g. linseed oil putty, to through dry sufficiently before painting over. Note and follow the manufacturer's instructions. Because of the odour, do not use oil lacquers, BEECK Wood Primer or BEECK Undercoat on the insides of cupboards and drawers. Only lacquer the fronts of furniture and exterior surfaces. Derust ferrous metals and steel, prime with BEECK Corrosion Protection Primer.
- ***Unsuitable substrates*** are horizontally installed or slightly sloped wood exposed to the weather, mechanically stressed and wood in contact with the soil. Note constructive and possible chemical wood preservation according to DIN 68800 Part 3. Tropical woods, oak and wood-based materials: try out on a test area. Plasto-elastic, weak adhesion and brittle old coatings, e.g. acrylic-based, cannot be coated over. Zinc coated sheet steel, aluminium, anodic coatings, non-ferrous metals and areas highly at risk of corrosion are also not suitable.
- ***Defective substrates*** require a differentiated approach; try out on a test area.

2.4. Application instructions

2.4.1. General information

Check substrate suitability as required (see 2.1 and 2.3). Pay particular attention to the absorbency, strength and texture of the respective substrate. Try out on a test area before using on high quality and critical surfaces. Ensure that the product is used by qualified persons.

- Carefully cover surfaces which are not to be treated – especially glass, window sills, expansion joints, lacquer, plastics and hardware – and protect them from splashes.
- Provide personal protective equipment.
- Stir thoroughly before use.
- Do not use in wet conditions, if there is a risk of frost, on hot surfaces or in the blazing sun.
- Minimum application temperature: +8°C. Ensure ventilation and heat (room ambient temperature), handle fresh coatings carefully.
- Drying time per coat: in normal climate is ready to sand and coat over after at least 24 hours
- Only coat over dried primers. Tack-free in normal climate after several days, avoid excessive coat thicknesses and gluing up/clogging, e.g. in door rebate.
- Protect fresh exterior coatings from the rain; hang up scaffolding sheeting in front of the surface worked on.

2.4.2. Application

If using BEECK Undercoat in the system, apply with a round brush, flat brush, painting roller or a spraying method (low pressure, high-pressure, air-mix).

- Apply thin coats, smoothly, seamlessly and uniformly.
- Avoid excessive coat thicknesses, spread out well including on rough substrates.
- If necessary, thin with up to 3 % BEECK Lacquer Thinner, especially on absorbent and rough substrates and if using a spray coating method.
- 1 – 2 coats as required, e.g. on highly contrasting or large-pored substrates. Ensure good edge cover.
- After at least 24 hours, finely sand or grind, if necessary, the surface, remove dust and paint over.
- Also avoid excessive coat thicknesses if using spray coating method; carefully spread excess material on the surface with a brush. Do not allow any "lakes" fat edges or runs and sags to dry on the surface, especially on horizontal surfaces and in recesses. A sample application is advisable.
- Note the risk of auto-ignition in extractor filter mats in case of oily overspray.

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3. Application Rate and Container Sizes
The application rate, i.e. the quantity required for planed, primed softwood is approx. 0.08 L BEECK Undercoat per m² and pass. Determine additional application rate on rough-sawn wood and wood-based materials by trying out on a sample area.
Container sizes: 0.25 L / 0.75 L / 3 L / 10 L

4. Cleaning
Use BEECK Lacquer Thinner to thoroughly clean equipment, tools and soiled clothing immediately after use.

5. Storage
Stored in original container, tightly closed, can be kept for at least 12 months. Close opened container air-tight, remove any skin that has formed: do not stir it into the product. Never pour into solvent-swellable containers.

6. Hazard notes, safety instructions and disposal
Comply with the EC Safety Data Sheet. Safety data sheet available on request.
May cause sensitisation of susceptible persons. Contains Orange oil. May produce an allergic reaction. Cleaning cloths, paper or other materials that are used for absorption can become a potential fire hazard. Collect and safely dispose in closed, non-flammable containers after use.
Hazard statements: Harmful to aquatic life with long lasting effects.
Precautionary statements: Keep out of reach of children. Do not get in eyes, on skin, or on clothing. Avoid release to the environment. Disposal in accordance with the official regulations.
Waste disposal number: 080112

7. Declaration
This technical information is offered as advice based on our knowledge and practical experience. All information is provided without guarantee. It does not release the user from their responsibility to check the product suitability and application for the specific substrate on which it is to be used. Subject to change without notice as part of our product development. Non-system additives for tinting, thinning, etc. are not permitted. Check the colours before use. This information sheet automatically becomes invalid when a new edition is issued. The information in the current version of the EC Safety Data Sheets is binding for classification according to the Hazards identifications, disposal considerations, etc.