TECHNICAL DATA SHEET (TDS)

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Product: ENVOX – Extreme hydrophobicity oil glaze [cite: 1]

1. DESCRIPTION AND INTENDED USE

Envox is an advanced, solvent-based hybrid wood protection product that combines the deep penetration of traditional linseed oil with the durability of modern alkyd resins [cite: 3]. Thanks to the use of microcrystalline wax dispersion, it forms an intelligent coating on the wood surface with extreme hydrophobicity (the so-called "lotus effect" – water beads up and runs off without wetting the structure) [cite: 4]. The product is 100% free of biocides – it works by physically shielding the wood from the destructive effects of moisture and UV radiation [cite: 5].

- *For exterior and interior use [cite: 6].*
- *Designed for the protection and decoration of: wooden facades, decks, garden furniture, pergolas, fences, roof soffits, and garden architecture [cite: 7].*
- *Suitable for European and exotic wood species [cite: 8].*

2. MECHANISM OF ACTION AND ADVANTAGES

- **Hybrid action:** *The oil penetrates the wood pores, while the resin forms a flexible protective film on the outside [cite: 9].*
- **Extreme hydrophobicity:** *The wax repels water, preventing moisture ingress [cite: 10].*
- **UV protection:** *Transparent nano-iron oxides act as a shield against greying, while preserving the natural wood grain pattern [cite: 11].*
- **Microporous coating:** *The wood "breathes" and releases its natural moisture; the coating does not flake or crack due to wood movement [cite: 12].*

3. PHYSICOCHEMICAL DATA

Chemical base:

Long-oil alkyd resin, double-boiled linseed oil [cite: 13].

Solvent:

Low-aromatic aliphatic solvent (odourless) [cite: 14].

Density:

approx. 0.89 g/cm³ [cite: 15].

Coating appearance:
Satin / Semi-matt (depending on the sanding degree of the wood) [cite: 16].

VOC content:
EU limit (cat. A/e/FR): 400 g/l. This product contains max 390 g/l VOC [cite: 17].

Coverage (planed wood):

12 - 14 m²/litre (per coat) [cite: 18].

Coverage (rough wood):

8 - 10 m²/litre (per coat) [cite: 19].

Dust dry:

after 4 - 6 hours [cite: 21].

Second coat:

after 12 hours [cite: 22].

Full curing:

after 7 days [cite: 23].

** Actual coverage depends on wood absorbency and applied film thickness [cite: 20]. Low temperature or high humidity can significantly extend drying times [cite: 24].*

4. APPLICATION INSTRUCTIONS

STEP 1: SURFACE PREPARATION [CITE: 25]

The wood must be dry (max. moisture content 18%), clean, dust-free and degreased [cite: 26]. Old flaking paint coatings must be completely sanded down to bare wood [cite: 27]. It is recommended to sand the wood with P80 - P120 grit sandpaper [cite: 28].

STEP 2: PRODUCT PREPARATION [CITE: 29]

CRITICAL: *Before use, the product must be stirred very thoroughly (do not shake!) [cite: 30]. Due to the wax and pigment content, a natural sediment may settle at the bottom of the can [cite: 31]. Stir with a flat stirring stick for at least 2 minutes, reaching the very bottom. During prolonged painting, stir every 15 minutes [cite: 32]. Do not thin [cite: 33].*

STEP 3: APPLICATION [CITE: 34]

Tools: *Brush made of natural or mixed bristle, alternatively a velour roller. Spray application is prohibited [cite: 35].*
Conditions: *Do not apply in full sun, during rain, or at temperatures below +10°C [cite: 36].*
Painting: *Apply thin coats, working the product into the wood along the grain. Excess product (puddles) should be removed with a dry brush or cotton cloth after approximately 15-20 minutes of application [cite: 37]. A coat that is too thick will prevent the product from drying [cite: 38].*

STEP 4: SECOND COAT [CITE: 39]

Apply the second coat after a minimum of 12 hours from the application of the first coat [cite: 40]. Before applying the second coat, it is recommended to lightly sand the surface with fine sandpaper (P220-P240) to remove raised wood fibres [cite: 41]. Tools should be cleaned immediately after use with white spirit or extraction solvent [cite: 42].

WARNING - RISK OF SPONTANEOUS COMBUSTION [cite: 43] *Rags, tow, or sponges soaked with the product may self-ignite due to the linseed oil content [cite: 43]. Immediately after use, immerse them in water in a metal container or spread them flat outdoors until completely hardened and dry before disposal [cite: 44].*

5. STORAGE AND HANDLING

Store in tightly sealed original containers at temperatures between +5°C and +30°C. Protect from ignition sources and direct sunlight [cite: 45]. Shelf life: 36 months from the production date indicated on the packaging [cite: 46].