

Neorooft[®] Nordic

Hybrid elastomeric waterproofing coating in terracotta shade



Description

Hybrid elastomeric waterproofing coating for roofs (UV-curable) in terracotta shade

Fields of application

- Exposed roofs made of concrete, cement tiles or cement screed
- Walkable roofs, especially when increased resistance to ponding water is required
- On top of mineral bitumen membranes and roof tiles
- Metallic surfaces

The above surfaces require appropriate preparation and priming prior to the application of Neorooft[®] Nordic



Packing

13kg and 4kg

Colour

Nordic

Properties - Advantages

- Prevents the deposit of dust and pollutants
- Does not get tacky even under extremely high temperatures
- Long-lasting resistance to UV radiation & adverse weather conditions
- Remains elastic in a broad range of temperatures from -35°C to +80°C
- Suitable for walkable roofs
- Increased resistance to ponding water
- Water vapour permeable, allows the roof to “breathe”
- Eco-friendly & user-friendly (water-based, one-component)
- Economical solution, also due its high spreading rate

Certificates – Test reports

- CE certification as Neorooft[®] acc. to EN 1504-2
Certificate of Conformity No. 1922-CPR-0386
- Test report as Neorooft[®] by the external independent quality control laboratory Geoterra (No. 2015-397, No. 2020-190_1)
- Complies with the V.O.C. content requirements acc. to the E.U. Directive 2004/42/CE



Technical characteristics

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| Density (EN ISO 2811-1) | 1,35kg/L (±0,05) |
| Elongation at break (ASTM D412) | 300% (±20) |
| Tensile strength at break (reinforced with Neotextile®, ASTM D412) | >5MPa |
| Adhesion strength (EN 1542) | >1,5N/mm ² |
| Hardness Shore A (ASTM D2240) | 44 |
| Liquid water permeability (EN 1062-3) | <0,1kg/m ² h ^{0,5} |
| Permeability to CO ₂ – Diffusion-equivalent air-layer thickness Sd (EN 1062-6) | >50m |
| Water vapour permeability – Diffusion-equivalent air-layer thickness Sd (EN ISO 7783) | 0,5m (Class I – permeable) |
| Accelerated UV ageing in the presence of moisture (UVB-313, 4h UV @60°C + 4h condensation @50°C, ASTM G154) | Pass (>1000 hours) |
| Service temperature | -35°C min. / +80°C max. |
| Consumption: • 700g/m² for two layers (cementitious surface) • 1-1,25kg/m² for two layers (mineral-surfaced bitumen membrane) | |

Application conditions

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| Substrate moisture content | <6% |
| Relative air humidity (RH) | <80% |
| Application temperature (ambient - substrate) | +12°C min. / +40°C max. |

Curing details

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| Drying time (+25°C, RH 50%) | 2-3 hours (initially) |
| Dry to recoat (+25°C, RH 50%) | 24 hours |
| Full hardening | ~ 7 days |
| <i>* Low temperatures and high humidity during application and/or curing prolong the above times, while high temperatures reduce them</i> | |

Appropriate primers on usual substrates

| Substrate | Primer | Description - Details |
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| Concrete, cement screed | Revinox® (diluted with water 1:4) | Water-based primer of high adhesion on cementitious substrates |
| | Silatex® Primer | Acrylic solvent-based primer, with high penetrating ability |

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| | Vinyfix® Primer | Solvent-based primer based on vinyl resins, ideal for stabilizing brittle substrates |
| Bitumen membrane with mineral slates | Revinex® (diluted with water 1:4) | Water-based primer, suitable for stabilizing bitumen membranes with mineral slates, offering an ideal bridge of adhesion |
| Metal (iron, steel) | Neotex® Metal Primer | Water-based, one-component anti-corrosive primer, with excellent adhesion on old or new metal surfaces |
| Inox, galvanized steel, aluminium | Neotex® Inox Primer | One-component water-based primer, with high adhesion strength on glossy non-porous substrates |

Instructions for use

Substrate preparation

The surface must be stable, clean, dry, protected from rising moisture and free of dust, oil, grease and loose materials. Any poorly adhering materials and older coatings should be removed, and the surface should be thoroughly cleaned mechanically or chemically. Depending on the substrate, appropriate mechanical preparation may be required, to smooth the irregularities, open the pores and create the optimum conditions for adhesion. The surfaces should have the appropriate slopes and they should be sufficiently flat, smooth, and continuous (i.e., without holes, cracks, bays, etc.). In the opposite case, they should be treated accordingly (e.g. by proper puttying).

Priming

Prior to the application of **Neorooft® Nordic**, the proper **NEOTEX®** primer should be applied, depending on the substrate. In the case of cementitious substrates, it is proposed to apply **Revinex®** diluted with water in a ratio **Revinex®**: water - 1:4 or the solvent-based primers **Silatex® Primer** or **Vinyfix® Primer**.

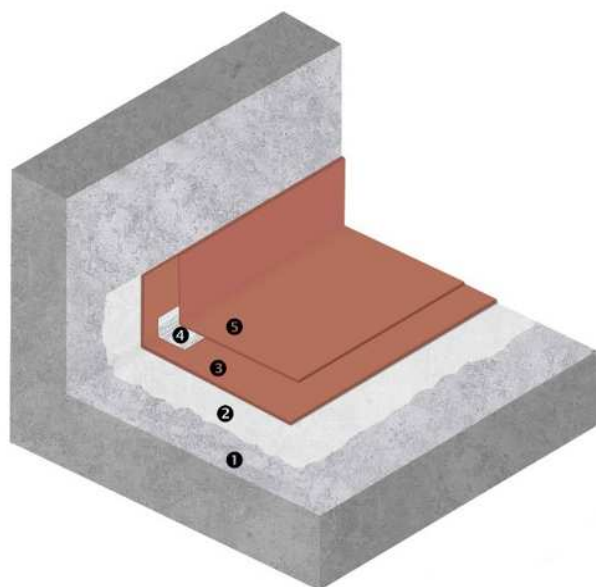
Application

Following the priming of the surface, **Neorooft® Nordic** is applied, after thorough stirring, in at least two layers by roller, brush or airless spray. The first layer is diluted 5% with clean water, while the second layer (and every subsequent one) follows after app. 24 hours, applied undiluted. Every layer of **Neorooft® Nordic** should be applied in a vertical or different direction than the previous one.

Along the upstands-floor intersections (as well as in all other corners), in construction details (such as around and inside roof drains), along the joints, as well as when covering cracks, it is advisable that **Neorooft® Nordic** is locally applied in advance, reinforced with the specially designed non-woven polyester fabric **Neotextile®** of 50gr/m² weight ("wet-on-wet" application of two layers with the fabric positioned in between).

In cases of projects with higher demand in terms of mechanical resistance and crack bridging, it is recommended that **Neorooft® Nordic** is thoroughly reinforced with the non-woven polyester fabric **Neotextile®** in the whole application surface.

Indicative systems build-up



EXPOSED ROOF WATERPROOFING ON CEMENTITIOUS SUBSTRATE

- 1 Cementitious substrate
- 2 *Primer: Revinex®* diluted with water (mixing ratio 1:4)
- 3 *Waterproofing base coat: Neorooft® Nordic* (diluted 5% with water)
- 4 *Corner reinforcement: Neotextile®* tape
- 5 *Waterproofing topcoat: Neorooft® Nordic* (without dilution)

Consumption of Neorooft® Nordic: 0,7kg/m² for two layers



REINFORCED WATERPROOFING SYSTEM FOR EXPOSED WALKABLE ROOFS

- 1 Cementitious substrate
- 2 *Primer: Revinex®* diluted with water (mixing ratio 1:4)
- 3 *Waterproofing base coats: Neorooft® Nordic* (diluted 5% with water) "Wet-on-wet" application of two layers with the fabric positioned in between
- 4 *Polyester reinforcement: Neotextile®*
- 5 *Waterproofing topcoat: Neorooft® Nordic* (without dilution)

Consumption of Neorooft® Nordic: 1,5-1,8kg/m²


Special notes

- **Neorooft[®] Nordic** should not be applied under wet conditions, or if wet conditions or rainy weather are expected to prevail during the application or the curing period of the product
- Substrate temperature during application and curing must be at least 3°C above dew point to avoid condensation issues
- Applicable only on exterior surfaces exposed to UV radiation (not in interior/contained spaces). Not intended for application on surfaces that are not exposed to UV.
- Under conditions with no sunshine, the curing of the membrane takes more time and the surface remains tacky for longer time periods
- The application is continued sufficiently in the vertical surfaces of the roof (min. 30cm), in order to form a uniform waterproofing membrane. It is recommended in any case to cover the upstands entirely and to continue the waterproofing application in their horizontal sections.
- The durability of the waterproofing system is enhanced by the increase of the total dry film thickness, which may be achieved through the application of an additional layer or layers.
- In areas with an increased likelihood of stagnant water remaining for an extended period of time, **Neorooft[®] Nordic** is recommended to be reinforced with the polyester fabric **Neotextile[®]**. In such case at least 3 coats of **Neorooft[®] Nordic** are required locally. In any case though, it is deemed necessary that appropriate slopes are created in advance to facilitate the smooth flow of water away from the roof.
- In case of new cement screed and soon after its laying, it is recommended to create suitable joints (per 15-20m² of surface area and at a depth approximately equal to $\frac{3}{4}$ of the thickness of the cement screed), which shall then be properly sealed (eg with closed-cell PE foam cord and **Neotex[®] PU Joint** after proper priming of their sides). It is also necessary to create expansion joints around the perimeter, as above, and with a minimum width of 1cm. Any existing joints of the concrete slab should be transferred to the new substrate.

Maintenance instructions

- The total hardening of the film occurs app. 7 days after the application of the final layer, depending also on the atmospheric conditions. During this period, it is advisable that the access to the application area is prohibited or limited only to specialized personnel.
- It is recommended to annually inspect the coating for any damage caused by accidental impact or misuse
- In case of need for local repairs, **Neorooft[®] Nordic** is re-applied in its original dry film thickness at the minimum, after cleaning and priming (if necessary) the affected area. Where appropriate, it is recommended that the non-woven polyester fabric **Neotextile[®]** is used as a reinforcement.
- Periodic cleaning by water-jetting is advisable (combined with a neutral washing agent, if needed), especially in case of heavy accumulation of dirt, dust and pollutants on the surface

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| Appearance | Viscous liquid |
| Colours | Terracotta (<i>Nordic</i>) |
| Packing | 13kg and 4kg in plastic pails |
| Cleaning of tools – Stains removal | By water immediately after application. In case of hardened stains, by mechanical means |
| Volatile organic compounds (V.O.C.) | V.O.C. limit acc. to the E.U. Directive 2004/42/CE for this product of category AcWB: 40g/l (Limit 1.1.2010) - V.O.C. content of the ready-to-use product <40g/l |
| UFI code | TM90-X0JV-600K-WA1A |
| Versions | Neorooft[®] , hybrid elastomeric waterproofing coating, with certified cool roofing properties Neorooft[®] BM , ideal for applications on top of bitumen membranes |
| Storage stability | 2 years, stored in its original sealed packing, protected from frost, humidity and exposure to sunlight |

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| NEOTEX S.A. V.Moira str., P.O. Box 2315 GR 19600 Industrial Area Mandra, Athens, Greece 14 | |
| 1922-CPR-0386 DoP No.: 4950-01 EN 1504-2 Neorooft[®] Surface protection products Coating | |
| Water vapour permeability | Class I |
| Adhesion strength | ≥1.5N/mm ² |
| Capillary absorption and permeability to water | W<0.1Kg/m ² h ^{0.5} |
| Permeability to CO ₂ | S _D >50m |
| Reaction to fire | Euroclass F |
| Dangerous substances | Comply with 5.3 |

The information supplied in this datasheet, concerning the uses and the applications of the product, is based on the experience and knowledge of NEOTEX[®] SA. It is offered as a service to designers and contractors to help them find potential solutions. However, as a supplier, NEOTEX[®] SA does not control the actual use of the product and therefore cannot be held responsible for the results of its use. As a result of continual technical evolution, it is up to our clients to check with our technical department that this present data sheet has not been modified by a more recent edition.

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