

Neopox® W Plus C-1,5a/s AP

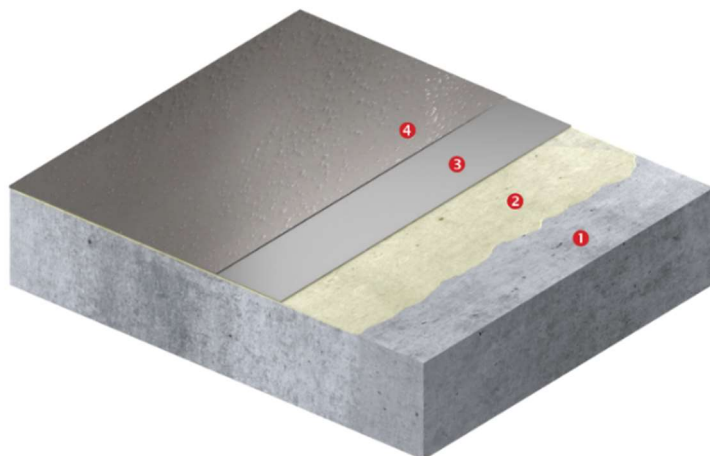
Slip-resistant water-based epoxy coating system, with extremely low VOC emissions and an abrasion resistant finish, for interior floors

- ✓ Dry film thickness: ~150µm
- ✓ For light-medium duty floors
- ✓ Anti-slip finish
- ✓ Odourless – Ideal for interior rooms
- ✓ Complies with the LEED requirements for VOC emissions and VOC content
- ✓ Excellent reaction to fire
(B_{fl}-s1 acc. to EN 13501-1)
- ✓ Suitable for various food facilities



System Build-up – Indicative Consumptions

Layer	Product	Consumption
Priming	Acqua Primer	120-160gr/m ² for one layer
Protective base coat	Neopox® W Plus	165-200gr/m ² in one layer by roller
Protective topcoat	Neopox® W Plus mixed with Neotex® Antiskid M (added 1,5-2,5% w/w)	165-200gr/m ² in one layer by roller



System Characteristics

Nominal thickness 150microns

Final surface appearance

Slip-resistant – Uniformly rough (effect of sparse quartz broadcast) - Coloured

User load

LD/MD (Light-Medium Duty)

Reaction to fire (EN 13501-1)

B_{fl}-s1

Abrasion resistance (ASTM D4060)

<100mg (Taber Test, CS 10/1000/1000)

Adhesion strength (EN 13892-8)

≥2,5N/mm²

Flexibility (ASTM D522)

Pass (180° bend, 1/8" mandrel)

Skid resistance (EN 13036-4, wet surface, with 2,5% w/w addition of Neotex® Antiskid M)

≥35 PTV (Pendulum Test Value, slider 96) R11 equivalent

Resistance to liquids (EN ISO 2813-3, absorbent medium)

No visible defects

Liquid water permeability (EN 1062-3)

<0,1kg/m²h^{0,5}

Resistance to temperatures (dry loading)

-30°C min. / +70°C max.

① Concrete substrate

② Priming: **Acqua Primer**

③ Base coat: **Neopox® W Plus**

④ Topcoat: **Neopox® W Plus** mixed with **Neotex® Antiskid M** (added 1,5-2,5% w/w)



System Description

Slip-resistant water-based epoxy coating system, of total thickness ~150microns, with extremely low VOC emissions and an abrasion resistant finish, for interior floors. Forms an anti-slip, seamless & monolithic coating of closed porosity, which is resistant to light-medium loading and renders a waterproof and non-absorbent final surface.

Qualified for use in **LEED** projects globally, by showing compliance with the specifications for VOC emissions and VOC content, with respect to the products that comprise the system, which are also classified in the highest emission class **A+** regarding VOC emissions in interior areas acc. to the French legislation requirements. Additionally, the system presents excellent reaction to fire with classification **B_f-s1** acc. to **EN 13501-1**. Suitable for use in the food industry.

Indicative Fields of Application

Interior and exterior floors subject to light-medium stresses*, e.g. in:

- Hotels and stores
- Warehouses and parking garages
- Dining areas and sanitary facilities (e.g. laundries, lavatories)
- Areas of increased humidity, such as bathrooms and kitchens

**Indicatively:* light to regular pedestrian traffic, occasional to frequent traffic by cars & trucks with rubber tires, occasional traffic by forklift trucks with rubber tires

Main System Products

Neopox® W Plus: Premium water-based, two-component, epoxy coating. It constitutes the main material of the system, creating a floor coating with high resistance to abrasion and mechanical stress, which guarantees the long-lasting protection of the substrate.

Acqua Primer: Water-based epoxy primer, suitable for the protection of cementitious surfaces which will be covered with epoxy systems. It stabilizes the substrate and creates an ideal bridge of adhesion for the subsequent epoxy coating.

System Properties & Advantages

- Excellent resistance to abrasion and mechanical stress
- Resistant to water, alkalis and dilute acids, detergents and mild solvents
- High anti-slip properties
- Complies with the strict VOC requirements for sustainable buildings, according to LEED guidelines – System comprised by products with zero VOC content combined with exceptionally low VOC emissions
- Excellent reaction to fire (Class **B_f-s1** acc. to **EN 13501-1**)
- Tested and evaluated for its suitability in food facilities
- Excellent wet-scrub resistance (**Class 1** acc. to **EN 13300**)
- Odourless – Ideal for interior rooms, where solvent fumes are unwanted
- Broad service temperature range
- Easy to apply

Certificates – Test Reports

Neopox® W Plus

- CE Certification acc. to EN 1504-2
- CE Certification acc. to EN 13813
- Classified as a synthetic resin screed material SR-AR1-B2,0-IR5
- Qualified for use in LEED projects globally, by showing compliance with the specifications for VOC emissions and VOC content, as attested by the external independent specialized laboratory of Eurofins - Fulfills the requirement LEED v4 & v4.1 (beta): EQ Credit - Low-Emitting Materials, achieving the highest classification in terms of TVOC emissions ($<0,5\text{mg}/\text{m}^3$), combined with VOC content $<1\text{g}/\text{l}$
 - Attestation LEED v4 and v4.1 (beta): EQ Credit - Low-Emitting Materials
 - VOC Emission Test report No. 392-2023-00256101 – Regulation: CDPH (California Department of Public Health) v.1.2-2017
 - VOC Content Test report No. 392-2023-00256101 – Regulation: SCAQMD (South Coast Air Quality Management District) Rule 1113 (2016)
- Certification of compliance with the French regulation regarding indoor VOC emissions - Classified in the highest emission class A+
 - Attestation French VOC Regulation: VOC emission class A+
 - VOC Emission Test report No. 392-2023-00256101 – French VOC Regulation: Decree of March 2011 and Arrête of April 2011 and French CMR components: Regulation of April and May 2009
- Certified for its high performance in terms of reaction to fire acc. to EN 13501-1
Classified as B_f-s1 based on classification report No. 1608\DC\REA\23_3 acc. to EN 13501-1 and individual test reports acc. to EN ISO 9239-1 and EN ISO 11925-2 (No. 1608\DC\REA\23_1 & 2) by the independent accredited laboratory CSI S.p.A
- Tested and evaluated for its suitability in food facilities – Complies with the overall migration limits for all types of food, except for acidic foods (i.e. vinegar or foods with $\text{pH} \leq 4,5$), acc. to Table 3 of Annex III-Part 4 of the Commission Regulation (EU) No 10/2011 on plastic materials and articles intended to come into contact with food.
Test report for the overall migration into food simulants A-B-D2 acc. to EN 1186-2, EN 1186-3 and EN 1186-9, by the external independent specialized laboratory of TÜV AUSTRIA Food Allergens Labs (Certificate No. 5012-GR01052204-23-08)
- Tested successfully and evaluated for its wet-scrub resistance, cleaning ability and resistance to liquids – Classified in the highest class (Class 1) acc. to EN 13300
Test report by the external independent quality control laboratory Eurofins (No. 392-2023-00256102)
- Test report by the external quality control laboratory Geoterra (No. 2019-300 & 2023/333_37)
- Complies with the V.O.C. content requirements acc. to the E.U. Directive 2004/42/CE



Acqua Primer

- CE certification acc. to EN 13813
Classified as SR-B2,0
- Qualified for use in LEED projects globally, by showing compliance with the specifications for VOC emissions and VOC content, as attested by the external independent specialized laboratory of Eurofins - Fulfills the requirement LEED v4 & v4.1 (beta): EQ Credit - Low-Emitting Materials, achieving the highest classification in terms of TVOC emissions ($<0,5\text{mg}/\text{m}^3$), combined with VOC content $<1\text{g}/\text{l}$
 - *Attestation LEED v4 and v4.1 (beta): EQ Credit - Low-Emitting Materials*
 - *VOC Emission Test report No. 392-2023-00256103 – Regulation: CDPH (California Department of Public Health) v.1.2-2017*
 - *VOC Content Test report No. 392-2023-00256103 – Regulation: SCAQMD (South Coast Air Quality Management District) Rule 1113 (2016)*
- Certification of compliance with the French regulation regarding indoor VOC emissions - Classified in the highest emission class A+
 - *Attestation French VOC Regulation: VOC emission class A+*
 - *VOC Emission Test report No. 392-2023-00256103 – French VOC Regulation: Decree of March 2011 and Arrête of April 2011 and French CMR components: Regulation of April and May 2009*
- Certified for its performance in terms of reaction to fire as part of the coating system **Neopox® W Plus** and the self-levelling system **Neodur® CM** acc. to EN 13501-1
System classification B_f-s1 based on classification report No. 1608\DC\REA\23_3 and No. 1480\DC\REA\24_6 acc. to EN 13501-1 and individual test reports acc. to EN ISO 9239-1 (No.1608\DC\ REA\23_1 & No. 1480\DC\REA\24_4) and EN ISO 11925-2 (No.1608\DC\ REA\23_2 & No. 1480\DC\REA\24_5) by the independent accredited laboratory CSI S.p.A.
- Test reports by the external independent quality control laboratory Geoterra (No. 2020/280_1)
- Complies with the V.O.C. content requirements acc. to the E.U. Directive 2004/42/CE

Technical Characteristics of Main System Products

	Neopox® W Plus	Acqua Primer
Mixing ratio A:B (by weight)	100:25	100:40
Density (EN ISO 2811-1)	1,40kg/L ($\pm 0,1$)	1,05kg/L ($\pm 0,05$)
Liquid water permeability (EN 1062-3)	$<0,1\text{kg}/\text{m}^2\text{h}^{0,5}$	-
Permeability to CO ₂ – Diffusion-equivalent air-layer thickness Sd (EN 1062-6)	$>50\text{m}$	-
Water vapour permeability – Diffusion-equivalent air-layer thickness Sd (EN ISO 7783)	$>5\text{m}$ (Class II)	-
Classification acc. to EN 13813	SR-AR1-B2,0-IR5	SR-B2,0

System Application Conditions

Substrate moisture content	$<4\%$
Relative air humidity (RH)	$<70\%$
Application temperature (ambient - substrate)	$+12^\circ\text{C}$ min. / $+35^\circ\text{C}$ max.



Curing Details

	Neopox® W Plus	Acqua Primer
Pot life (+25°C, RH 50%)	45 minutes	1 hour
Dry to recoat - overcoat (+25°C, RH 50%)	24 hours	24 hours
Full hardening	~ 7 days	

** Low temperatures and high humidity during application and/or curing prolong the above times, while high temperatures reduce them*

System Method Application

Substrate preparation

- The concrete must be min. Grade C20/25, with a tensile (pull-off) strength of $\geq 1.5\text{MPa}$, and allowed to cure for at least 28 days, taking all the necessary maintenance measures during its curing period.
- The cementitious substrate must be properly prepared mechanically (e.g. grinding, shot blasting, milling etc.) to smooth out the irregularities, achieve an open-textured surface and ensure optimum adhesion (recommended surface profile CSP-2 to CSP-3, based on ICRI Technical Guideline 310.2R)
- The surface must be dry and protected from rising moisture, stable, clean and free of dust, oil, grease, etc. Loose friable material must be fully removed by brushing or sanding with a suitable machine and a high suction vacuum cleaner.
- The surface must be as smooth and flat as possible, as well as continuous (ie without voids, cracks etc.). Repairs to the substrate, filling of joints, blowholes/voids and surface leveling must be carried out using appropriate repairing products, such as the pourable epoxy-cement mortar **Epoxol® CM** and the epoxy putty **Epoxol® Putty**, or/and a mixture of **Epoxol® Primer SF-P** and Quartz Sand M-32 (indicative mixing ratio 1:1-2 w/w), after proper priming.

Priming

For the stabilization of the substrate and sealing of pores, as well as for creating the optimum conditions for stronger adhesion and higher coverage of the subsequent epoxy system, it is recommended to apply the water-based epoxy primer **Acqua Primer**, in one layer by roller.

The two components A & B are mixed in the predetermined ratio (100A : 40B w/w) and after the addition 10-15% w/w of clean water, they are stirred for app. 2-3 minutes with a low-speed stirrer, until the mixtures become homogenous.

Consumption of Acqua Primer: 120-160gr/m² in one layer (in case of increased porosity a second layer may be required)

Application of protective base coat

Once the primer is dry to overcoat – specifically after 24 hours (+25°C, RH 50%), the first layer of the epoxy coating **Neopox® W Plus** is applied, diluted 10-15% w/w with water in one layer by roller.

The two components A & B are mixed in the predetermined ratio (100A : 25B w/w) and, after the addition of the water, they are stirred for app. 3-5 minutes with a low-speed stirrer. It is important to stir thoroughly at the bottom of the container, as well as near the sides, so that the hardener (component B) is evenly distributed. The mixture is left for a short time period in the container (~1-2 minutes) and then applied. Prior to mixing, mechanical stirring of component A is recommended.

Consumption of Neopox® W Plus: 165-200gr/m² in 1 layer by roller

**Application of anti-slip protective topcoat**

After 24 hours (+25°C, RH 50%), the final layer of the epoxy coating **Neopox® W Plus** (diluted 5-10% w/w with water) is applied by roller after adding the anti-slip additive **Neotex® Antiskid M** in the mixture.

Prior to the application, the mixing instructions are followed as described above. During the mixing process of **Neopox® W Plus** prior to the application of the final layer of the system, the anti-slip additive **Neotex® Antiskid M** is included in the mixture at a ratio of 1,5-2,5% w/w. Then, the mixture is stirred again with a low-speed stirrer for ~1 minute.

Consumption of Neopox® W Plus: 165-200gr/m² in 1 layer by roller

Special Notes

- After the application of the system, it is recommended that the floor's expansion joints are primed with **Neotex® PU Primer** or **Acqua Primer** and then sealed with the elastomeric polyurethane sealant **Neotex® PU Joint** or with the epoxy repairing material **Epoxol® Putty** in its elastic version (mixing ratio 1A : 2-2,5B w/w). Any incorrect evaluation regarding the function of the joints while covering them with the resin system, as well as any insufficient or incorrect repair of existing joints and cracks, may lead to the creation of cracks that are transferred to the resinous system from the substrate.
- The materials should not be applied under wet conditions, or if wet conditions are expected to prevail during the application or the curing period of the product. Increased humidity may have a negative impact on the adhesion, the film properties and/or the final result (e.g. blurry surface, stickiness).
- The components should not have been stored at very low or very high temperatures, especially before mixing. Mixing and stirring of the mixture should be preferably done in the shade. The stirring of the mixture must be done mechanically and not manually with a rod, etc.
- Excessive stirring of the material should be avoided, in order to mitigate the risk of air entrapment. After stirring the mixture, it is recommended to apply the material shortly in order to avoid the development of high temperatures and potential hardening inside the can.
- The substrate temperature must be at least 3°C above dew point to reduce the risk of condensation or blooming on the floor finish.
- It is recommended that the material used for the finish comes from the same production batch, in order to ensure that a completely uniform colour shade is achieved over the entire application surface.
- Due to the nature of the material, the direct and constant exposure of the final coating to UV radiation may cause the phenomenon of chalking over time. For this reason, the system is not recommended for exposed applications outdoors. In general, a gradual change in the shade may occur over time. Such change especially depends on the levels of the UV radiation and the thermal loading of the area and therefore, cannot be predicted.



System Chemical Resistance

The system presents durability against various chemical solutions (alkalis and dilute acids, petroleum products, salt water, various solvents etc.). For the indicative degree of chemical resistance to specific chemical compounds in relation to the contact time with them, please consult the respective chemical resistance table of the technical data sheet of **Neopox® W Plus**. For specific specialized information, please contact the Technical Support Department of **NEOTEX®**.

Maintenance Instructions

- In case of minor spills and stains, it is recommended to remove them as soon as possible by using a soft cloth along with clean warm water (temperature <+50°C)
- For the maintenance cleaning of the surface from dust and dirt, it is recommended to use a vacuum cleaner or a soft bristle broom. The use of hard brushes or wires to remove the stains should be avoided.
- For cleaning the surface from hardened stains, it is recommended to use a hard foam mop with a solution of water and ammonia (~3% dilution). Then, rinse off with clean warm water (temperature <+60°C) and dry the surface with a soft towel.
- In case of using commercial cleaning products, the use of neutral ones is recommended (pH between 7 and 10). Soaps or all-purpose cleaners containing water-soluble salts or harmful ingredients with high concentration in alkalis or acids should be avoided. Follow the manufacturer's recommendations with respect to the optimum dilution with water. In any case, the first time a commercial cleaning product is used, it is recommended that a trial is made in a small surface area.
- In case any chemical solutions come in contact with the floor, it is recommended to remove them as soon as possible (usually with warm water – temperature <+50°C – under pressure), to avoid any further chemical stress and possible discolouration or alteration of the gloss of the floor finish. It is noted that the frequent contact of the coating with chemical solutions (especially dense corrosive ones), acts cumulatively on the chemical stress of the surface, even if the removal of the chemicals is done regularly and diligently. Therefore, in such cases, side-effects such as discolouration or loss of gloss may be considered a normal development over time, but it is also normal that the best possible maintenance and regular cleaning of the floor directly extends the operational life of the coating.

The information referred on the use and the application, are offered as a service to designers and manufacturers in the sense of facilitating the finding of possible solutions and is based on the experience and knowledge of NEOTEX® S.A.. Due to the development of knowledge and methods, it is at the discretion of each interested party to be informed by the NEOTEX® technical department as to whether this brochure has been replaced by a more recent one. The measurable technical data stated in the current technical data sheet are based on laboratory tests and may differ from the results of other individual measurements due to conditions beyond the control of NEOTEX®. The durability of the system is directly related to the condition of the substrate and the type of load (mechanical, chemical) to which the substrate is subjected. It is important that the application is done in accordance with the applicable official technical data sheets (TDS) of the materials and that the use of the surface is within the specifications of the materials. As a producer and supplier, NEOTEX® S.A. does not control the application, the substrate conditions or the actual use of the products and therefore cannot be held responsible for the final result or any failures caused by poor application or omissions, inadequate substrate conditions or due to the end use of the products

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