

Neopox® Pool



Epoxy coating with UV filters, ideal for swimming pools

Description

Two-component solvent-based epoxy coating, with UV filters, ideal for the protection and decoration of swimming pools

Fields of application

- Exterior and interior swimming pools
- Fountains, water tanks, boats
- Metallic and polyester surfaces

The surfaces require appropriate preparation and priming prior to the application of Neopox® Pool.



Properties - Advantages

- With UV filters incorporated, offering increased resistance to chalking and yellowing
- Highly resistant to the chlorination chemicals of swimming pools
- Excellent resistance to abrasion and mechanical stress
- Very high adhesion strength
- Resistant to alkalis and dilute acids, petroleum products, fresh water, sea water and many solvents
- Broad service temperature range

Packing

Sets (A+B) of 10kg, 5kg and 1kg

Colours

WHITE	RAL 1013
1533	2930

**RAL 1013: Available only in 10kg*

Certificates – Test reports

- CE Certification acc. to EN 1504-2
Certificate of Conformity No. 1922-CPR-0386
- Test report by the external independent quality control laboratory Geoterra (No. 2019/300)
- Complies with the V.O.C. content requirements acc. to the E.U. Directive 2004/42/CE

Technical characteristics

Mixing ratio A:B (w/w)	75:25
Density (EN ISO 2811-1)	1,20kg/L ($\pm 0,1$)
Gloss (60°)	99
Abrasion resistance (Taber Test, CS 10/1000/1000, ASTM D4060)	57mg
Adhesion strength (EN 1542)	$\geq 3\text{N/mm}^2$
Flexibility (ASTM D522, 180° bend, 1/8" mandrel)	Pass
Scratch hardness (Sclerometer Test - Elcometer 3092)	10N
Skid resistance (EN 13036-4, wet surface, with 2,5% w/w addition of Neotex® Antiskid M)	36 (PTV – slider 55)
Skid resistance (EN 13036-4, wet surface, by broadcasting Quartz Sand M-32)	>45 (PTV – slider 55)
Liquid water permeability (EN 1062-3)	$< 0,1\text{kg/m}^2\text{h}^{0,5}$
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)	>5m (Class II)
Service temperature (dry loading, periodically)	min. -50°C / max. +140°C
Consumption: 250-330gr/m² for two layers (depending on the substrate)	

Application conditions

Substrate moisture content	<4%
Relative air humidity (RH)	<70%
Application temperature (ambient - substrate)	+12°C min. / +35°C max.

Curing details

Pot life (RH 50%)	+12°C	2 hours
	+25°C	1 hour
Dry to recoat (RH 50%)	+12°C	36 hours
	+25°C	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*

Appropriate primers on cementitious substrate

	Primer	Description - Details
Solvent-based	Epoxol® Primer	Two-component, solvent-based epoxy primer, for high penetration, stabilization and the creation of an ideal bridge of adhesion for Neopox® Pool on cementitious substrates
Water-based	Acqua Primer	Two-component water-based epoxy primer. Ideal in case of direct application of the Neopox® Pool coating system on new cementitious waterproofing layers of swimming pools
Solvent-free	Neopox® Primer WS	Two-component, solvent-free epoxy primer for damp surfaces. Acts as a water vapour barrier (Class III) when applied in increased thickness

Appropriate primers on metallic substrate (iron - steel)

Solvent-based	Neopox® Primer 815	Two-component, anticorrosive solvent-based epoxy primers suitable for metallic surfaces
	Neopox® Special Primer 1225	

Appropriate primers on galvanized substrate - stainless steel

Water-based	Neotex® Inox Primer	One-component, water-based primer, ideal for inox, aluminium, galvanized surfaces
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Appropriate primers on polyester substrate or gelcoat-coated surfaces

Solvent-based	Epoxol® Primer	Two-component epoxy primer, for the creation of an ideal bridge of adhesion on polyester substrates or gelcoat-coated surfaces, prior to the application of Neopox® Pool
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Instructions for use

Substrate preparation

Concrete

The concrete must be min. Grade C20/25, with a tensile 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.

The surface must be dry and protected from rising moisture, stable, clean and free of dust, grease, oil, 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.



Metallic surfaces (iron – steel)

The metallic surfaces must be properly prepared by sandblasting or sanding with a wire brush and should be dry, free of dust, dirt, greasy and oily substances, as well as any poorly adhering coatings. In rusty areas, it is recommended to locally apply the chemical rust converter **Neodur® Metalforce**. New metallic surfaces should be degreased with solvent **Neotex® 1021**.

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 coating, it is recommended to apply the solvent-based epoxy **Epoxol® Primer** or an alternative appropriate **NEOTEX®** primer (see table), depending on the substrate. In cases of substrates with increased porosity, an additional priming layer may be required.

Application

Smooth epoxy coating

Once the primer is dry to overcoat, it is recommended to apply the first layer of **Neopox® Pool** diluted 8% w/w with solvent **Neotex® 1021**, by roller, brush or airless spray. The second layer is applied in the same way ~24 hours after the application of the first one (depending also on the atmospheric conditions), diluted 4-8% w/w with solvent **Neotex® 1021**. For any additional layers, **Neopox® Pool** shall be diluted 4% w/w with solvent **Neotex® 1021**.

The two components A & B are mixed in the predetermined ratio (75A : 25B w/w) and, after the addition of the solvent, they are mechanically 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 minute) and then applied. Prior to mixing, mechanical stirring of component A is recommended.

Consumption of **Neopox® Pool**: 0,25-0,35kg/m² in two layers

*Anti-slip epoxy coating with the addition of **Neotex® Antiskid M***

Once the primer is dry to overcoat, **Neopox® Pool** is applied as described above by roller, brush or airless spray. During the mixing process of **Neopox® Pool** 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 and **Neopox® Pool** is applied on the surface by roller or brush.

Consumption of **Neopox® Pool**: 0,25-0,35kg/m² in two layers

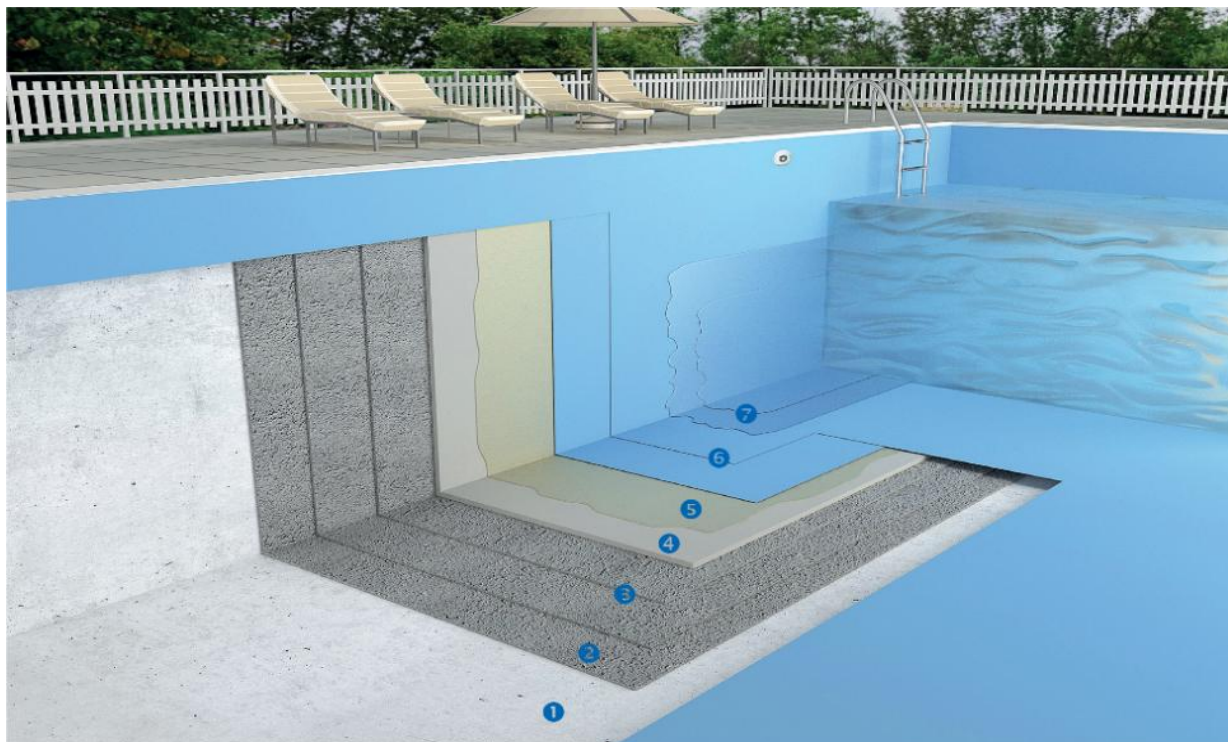
Anti-slip epoxy coating with broadcast of Quartz Sand M-32

After the priming and during the application of the first layer of **Neopox® Pool** diluted 8% w/w with solvent **Neotex® 1021**, it is recommended to broadcast Quartz Sand M-32 until saturation on the still fresh layer of **Neopox® Pool**, with an estimated sand consumption of 2-3kg/m². After drying, any loose grains should be removed with a high suction vacuum cleaner and any surface irregularities should be sanded down.

The surface is then sealed with **Neopox® Pool**, diluted 4-8% w/w with solvent **Neotex® 1021**, applied in 1 or 2 layers, depending on the desired slip resistance.

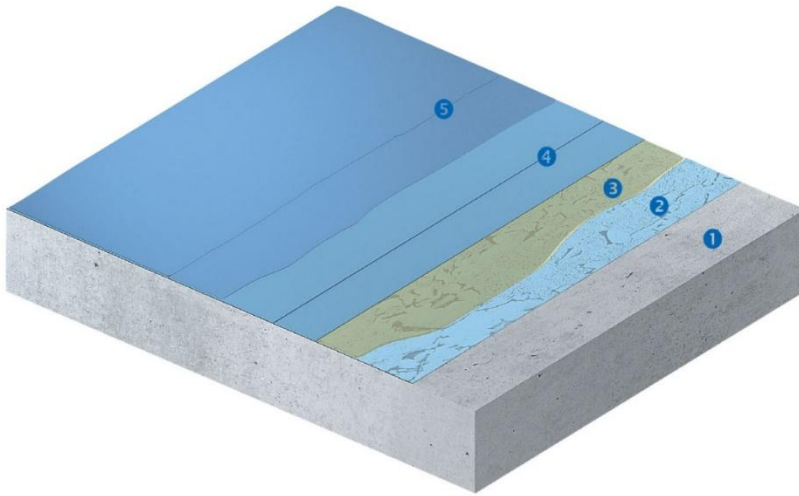
Consumption of **Neopox® Pool**: ~0,40-0,50kg/m² in two or three layers

Indicative systems build-up



WATERPROOFING AND PROTECTION OF SWIMMING POOLS

- ① Concrete
- ② **Revinex® Flex FP** or **Neopress® Crystal** (min. 2 layers)
- ③ **Revinex® Flex FP** or **Neopress® Crystal** with **Revinex®** (min. 1 layer)
- ④ Cement screed with **Revinex®**
- ⑤ **Epoxol® Primer** (or alternative **NEOTEX®** epoxy primer)
- ⑥ **Neopox® Pool** (min. 2 layers)
- ⑦ **Neodur® Varnish Gloss** (optionally - min. 2 layers)



Substrate: Old coating

Final appearance: New coating

- ① Concrete
- ② *Old coating:* Cleaning by mechanical means, sanding and inspection – if needed, puttying with **Epoxol[®] Putty**
- ③ **Epoxol[®] Primer** (or alternative **NEOTEX[®]** epoxy primer)
- ④ **Neopox[®] Pool** (min. 2 layers)
- ⑤ **Neodur[®] Varnish Gloss** (optionally - min. 2 layers)

Special notes

- **Neopox[®] Pool** 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. Increased humidity may have a negative impact on the adhesion, film properties and the final result (e.g. blur, 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
- 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 enhanced protection from the sunlight and to further prolong the appearance of chalking, the additional application of the polyurethane **Neodur[®] Varnish Gloss** is recommended in min. two layers.
- If the balancing and maintenance of the pool water chemistry is done by ozone or electrolysis, it is essential to additionally apply the polyurethane varnish **Neodur[®] Varnish Gloss** in at least two layers.
- In case that an extended period of time (>36 hours) has passed between successive layers, it is recommended to lightly sand the surface of the previous layer, in order to avoid possible adhesion problems of the next layer



- Prior to the application on existing epoxy coatings, light sanding of the whole surface is required
- Depending on the application and the substrate, **Neopox® Pool** (appropriately diluted with **Neotex® 1021**) may replace the primer. In case of using the product for surface priming, at least 2 additional layers should be applied as a paint.
- Depending on the desired slip resistance, quartz broadcast may be done by using quartz sand of greater granulometry (e.g. 0,4-0,8mm). In such case, the number of sealing layers and total consumption may increase

Preconditions for pools

- The pool should be filled with water after at least 7 days have passed from the application of the final layer of **Neopox® Pool**, depending also on the prevailing weather conditions during curing.
- It is advisable that balancing and maintenance of the water chemistry is managed professionally. The proposed chemical levels for the most important aspects that need balancing are:
 - Total alkalinity (TA): ~150ppm
 - pH: 7,2 - 7,6
 - Calcium hardness: ~300ppm
 - Chlorine at the lowest possible levels - Ideally 0,5-1,5ppm / always under 3ppm
- All chemicals must enter the pool pre-dissolved and by dispersing the dilute solution inside the pool with agitation, in order to avoid large concentrations in places
- High levels of algacides and over-chlorination must be avoided, since this may lead to the immediate appearance of chalking
- Monthly maintenance works are recommended, in order to remove any deposited salts, by brushing down intensively the walls and floor of the pool using long stiff bristle brooms. Following the scrubbing of the surface, the residues shall be allowed to settle and then be removed by appropriate means (pool vacuum, flocculant, etc.)

Appearance (cured)	Glossy
Colours	White, Light beige RAL 1013, Light blue 1533, Sky blue 2930 Available in other shades upon request
Packing	Sets (A+B) of 10kg (only white, Light Blue 1533 και Sky blue 2930), 5kg and 1kg in metallic containers
Cleaning of tools – Stains removal	By Neotex® 1021 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 A ₁ SB: 500g/l (Limit 1.1.2010) - V.O.C. content of the ready-to-use product <500g/l
UFI code	<i>Component A:</i> 6T60-70SS-3008-31T6 <i>Component B:</i> QGE0-Q0MQ-Y00U-PP87 <i>Component B (Winter):</i> HY60-805J-Q007-EQYA



Versions	Neopox® Pool Winter , for applications in highly humid environments (RH up to 80%) and low temperatures (down to +5°C). Mixing ratio 7,5A:2,5B w/w.
Storage stability	2 years, stored in its original sealed packing, protected from frost, humidity and exposure to sunlight

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1922-CPR-0386 DoP No.: 4950-49 EN 1504-2 Neopox® Pool Surface protection products Coating	
Water vapour permeability	Class II
Adhesion strength	$\geq 1,5\text{N/mm}^2$
Capillary absorption and permeability to water	$W < 0,1\text{Kg/m}^2\text{h}^{0.5}$
Permeability to CO ₂	$S_D > 50\text{m}$
Reaction to fire	Euroclass F
Dangerous substances	Complies 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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