# Epoxol<sup>®</sup> 3D

Transparent, two-component, solvent-free epoxy system, for the creation of 3D floors

# Description

TECHNICAL DATA SHEET

> Transparent, two-component, solvent-free epoxy system, ideal for the creation of 3D floors and other decorative applications

# **Fields of application**

- Decorative interior floors of hotels, offices, showrooms
- Commercial and residential floors

# **Properties - Advantages**

- High clarity even at high thicknesses
- Superb aesthetic result, provides a glossy bubble-free final surface
- Excellent resistance to mechanical stress .
- Remarkable hardness and durability .
- Low yellowing tendency
- Applicable at thicknesses of up to 2,5mm per layer
- Classified as SR-C60-F50-RWA20-SH50-B2,0-IR4 acc. to EN 13813

# Certificates – Test reports

- CE certification acc. to EN 13813 Classified as a synthetic resin screed material SR-C60-F50-RWA20-SH50-B2,0-IR4
- Test report by the external independent quality control laboratory NIISM (No. 825 & 825-1)
- Complies with the V.O.C. content requirements acc. to the E.U. Directive 2004/42/CE



## Appearance (after the application) Transparent, glossy

Packing Sets (A+B) of 16kg and 1kg





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Technical characteristics		
Mixing ratio A:B (by weight)	100:60	
Density (EN ISO 2811-1)	1,07kg/L (±0,05)	
Solids content by weight	~100%	
Solids content by volume	~100%	
Gloss (60°)	>100	
Abrasion resistance (Taber Test, CS 10/1000/1000, ASTM D4060)	70mg	
Wear resistance (Rolling wheel, EN 13982-7)	18,9cm <sup>3</sup> - Class RWA20	
Adhesion strength (EN 13892-8)	≥3N/mm <sup>2</sup>	
Hardness Shore D (ASTM D2240)	79	
Surface hardness SH (EN 13892-6)	60,3MPa - Class SH50	
Impact resistance (EN ISO 6272-1)	7,4Nm	
Scratch hardness (Sclerometer Test - Elcometer 3092)	8N	
Compressive strength (EN 13892-2)	Class C60	
Flexural strength (EN 13892-2)	Class F50	
Modulus of elasticity (EN 13412)	12,8GPa	
Liquid water permeability (EN 1062-3)	<0,01kg/m <sup>2</sup> h <sup>0,5</sup>	
Resistance to temperatures (dry loading)	-30°C min. / +80°C max.	
Consumption: ~1kg/m <sup>2</sup> per mm of thickness		

## **Application conditions**

Substrate moisture content	<4%
Relative air humidity (RH)	<65%
Application temperature (ambient - substrate)	+20°C min. / +40°C max.

# Curing detailsPot life (+25°C, RH 50%)40 minutesDrying time (+25°C, RH 50%)8 hoursDry to recoat (+25°C, RH 50%)24 hoursFull hardening~ 7 days

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

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## Instructions for use

#### Substrate preparation

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**, after proper priming.

#### Application

The printed image is pasted onto the smooth and properly prepared-primed surface, in such a way that no air entrapment occurs. The two components A & B are mixed at the predetermined ratio (100A : 60B) and stirred for app. 2-3 minutes with a low-speed electric stirrer, until the mixture is homogeneous. 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 then left in the container for app. 1 minute and spread on the substrate, to a maximum thickness of 2,5 mm, using a suitable notched trowel. During the application of the coating on the floor, it should be treated with a special spiked roller, so that any trapped air is released and a smooth bubble-free surface is created.

#### **Special notes**

- The temperature during the application and throughout the curing period must be higher than +20°C
- Epoxol<sup>®</sup> 3D 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
- 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 that reason, the application on exterior areas is not recommended.
- The material should not be applied as a "scratch" coat by smooth trowel or squeegee.



## **Maintenance instructions**

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- In case of minor spills and stains, it is recommended to remove them as soon as possible by using a soft cloth along with warm clean water (temperature <+60°C)</li>
- 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

Appearance (after the application)	Transparent, glossy
Packing	Sets (A+B) of 16kg and 1kg in metal cans
Cleaning of tools – Stains removal	By <b>Neotex<sup>®</sup> 1021</b> 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 AjSB "Two-Pack reactive performance coatings": 500g/I (Limit 1.1.2010). V.O.C. content of the ready to use product <500g/I.
UFI code	Component A: MTG0-D08F-8006-JVYY Component B: CY00-T0US-800K-3U5T
Storage stability	2 years, stored in its original sealed packing, protected from frost, humidity and exposure to sunlight



# CE

#### NEOTEX S.A.

V.Moira str., P.O. Box 2315 GR 19600 Industrial Area Mandra, Athens, Greece

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DoP No.: 4950-44

#### EN 13813 SR-C60-F50-RWA20-SH50-B2,0-IR4

#### Epoxol<sup>®</sup> 3D

Synthetic resin screed material for use internally in buildings

Release of corrosive substances	SR
Compressive strength	C60
Flexural strength	F50
Wear resistance	RWA20
Hardness	SH50
Impact resistance	IR4
Bond strength	B2,0
Reaction to fire	NPD

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HEADQUARTERS - PLANT V. Moira str., Xiropigado LOGISTICS SALES & CENTER Loutsas str., Voro P.O. Box 2315, GR 19600 Industrial Area Mandra Athens, Greece **T.** +30 210 5557579

#### NORTHERN GREECE BRANCH

Ionias str., GR 57009 Kalochori, Thessaloniki, Greece **T.** +30 2310 467275