



Epoxol[®] RM-YR

Clear, multi-purpose, solvent-free epoxy system

Description

Transparent, two-component, multi-purpose solvent-free epoxy system

Fields of application

- As a base coat and sealing layer of decorative interior floors with intermediate full broadcast of coloured quartz or decorative flakes
- Decorative sand and stone carpets for interior floors of shops, hotels, offices, showrooms, stairs, etc.
- May be also used as a primer

Appearance (after the application)

Transparent, glossy

Properties - Advantages

- Good yellowing resistance & high clarity
- High flexural and compressive strength, as well as abrasion and scratch resistance
- Remarkable hardness and durability
- Ideal binding resin for quartz sand of various grain sizes
- Excellent adhesion on various substrates
- Increased resistance to chemicals
- Free of solvents, aggregates, and fillers

Packing

Sets (A+B) of 16kg

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)	72mg
Adhesion strength (EN 13892-8)	≥3N/mm ²
Hardness Shore D (ASTM D2240)	79



Impact resistance (EN ISO 6272-1)	≥7Nm
Scratch hardness (Sclerometer Test - Elcometer 3092)	8N
Compressive strength (EN 13892-2)	≥60MPa
Flexural strength (EN 13892-2)	≥50MPa
Resistance to temperatures (dry loading)	-30°C min. / +80°C max.
Consumption: • ~400-500gr/m ² as a base coat or as a sealing layer on top of quartz sand 0,4-0,8mm broadcast • 1kg/m ² Epoxol® RM-YR + 6kg/m ² of coloured quartz sand 0,8-1,2mm (indicative for stone carpet of thickness 4mm)	

Application conditions

Substrate moisture content	<4%
Relative air humidity (RH)	<65%
Application temperature (ambient - substrate)	+15°C min. / +35°C max.

Curing details

Pot life (+25°C, RH 50%)	40 minutes
Drying time (+25°C, RH 50%)	8 hours
Dry to recoat (+25°C, RH 50%)	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*

Instructions for use

Substrate preparation

The concrete must be min. Grade C20/25, with a tensile strength of ≥1,5MPa, 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**, after proper priming.



Priming

For the stabilization of the substrate, sealing of pores, as well as for improving the adhesion of the subsequent layer, it is recommended to apply **Epoxol® RM-YR** or an alternative appropriate **NEOTEX®** primer, depending on the substrate. In cases of substrates with increased porosity, an additional priming layer may be required.

If the application of a stone carpet is to follow, especially in case it is applied more than 24 hours after the application of the primer, it is recommended to sparsely broadcast Quartz Sand M-32 (0,1-0,3mm) on the still fresh layer of the primer, with an estimated sand consumption of 0,3-0,5kg/m². After drying, any loose grains should be removed with a high suction vacuum cleaner.

Application as a base coat and sealing layer of decorative interior floors with intermediate full broadcast of coloured quartz

Once the primer is dry to overcoat, **Epoxol® RM-YR** is applied in one layer by roller or trowel or squeegee.

The two components A & B are mixed in the predetermined ratio (10A : 6B w/w) and they are stirred mechanically for app. 3 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.

During the application of the base coat of **Epoxol® RM-YR**, it is recommended to broadcast coloured quartz in excess (until saturation) on the still fresh layer of **Epoxol® RM-YR**, with an estimated sand consumption of 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 **Epoxol® RM-YR**, applied in 1 or 2 layers.

Consumption of **Epoxol® RM-YR** as a base coat: a) 0,25-0,30kg/m² in one layer by roller

b) 0,40-0,50 kg/m² in one layer by trowel or squeegee

Consumption of **Epoxol® RM-YR** as a sealing layer: 0,40-0,50 kg/m² in 1-2 layers (indicative for quartz 0,4-0,8mm)

Application of a decorative quartz or stone carpet on floors

Once the primer is dry to overcoat, it is recommended to apply the resin-mortar of **Epoxol® RM-YR** mixed with quartz sand (e.g. F 0,8-1,2mm or R 1-2mm) in a ratio of 1:6 to 1:10 w/w, depending on the grain size of the aggregates and the desired layer thickness. For quartz sand of grain size 0,8-1,2mm, the minimum recommended layer thickness of the stone carpet is 4mm.

The two components A & B are mixed in the predetermined ratio (10A : 6B w/w) and they are stirred mechanically for app. 3 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 quartz sand is then gradually added in the proposed ratio, under continuous stirring until the mixture becomes homogeneous.

The resin-mortar is, then, poured and applied in one layer on the surface, spreading and pressing it on the substrate by a smooth metal trowel. For the correct and easy application of the stone carpet, it is recommended to use the special non-stick agent **Mineral Oil Light** during the laying, which improves the sliding ability of the trowel, after previously wetting the trowel with it. As soon as the trowel begins to become sticky during the application, it is required to re-use **Mineral Oil Light**. Alternatively, solvent **Neotex® 1021** can be used for that purpose.

Special notes

- **Epoxol® RM-YR** 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 use of **Epoxol® RM-YR** is limited to indoor use only. Due to the nature of the material, its direct and continuous exposure to ultraviolet radiation may cause acceleration of yellowing and/or blurring of the surface, as well as the phenomenon of chalking over time
- 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

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 warm clean water (temperature <+60°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



Chemical Resistance Table

Chemical substances (% content)	Contact time with chemicals (+20°C)		
	1 hour	5 hours	24 hours
Phosphoric acid (10%)	B	B	B
Sulphuric acid (10%)	A	A	A
Hydrochloric acid (10%)	A	A	A
Lactic acid (10%)	B	B	B
Nitric acid (10%)	B	C	C
Citric acid (10%)	A	A	A
Sodium hydroxide (10%)	A	A	A
Formaldehyde (10%)	A	A	A
Ammonia (10%)	A	A	A
Chlorine (5%)	A	A	A
Diesel	A	A	A
Gasoline unleaded	A	A	A
Xylene	A	A	A
M.E.K	A	A	A
Alcohol 95 ⁰	A	A	A
Saltwater 15%	A	A	A
Engine oil	A	A	A
Wine (red)	A	A	A
Evaluation of resistance A: Excellent resistance B: Good resistance (light discolouration) C: Reduced resistance (intense discolouration) D: Not recommended			

Appearance

(after the application)

Transparent, glossy

Packing

Sets (A+B) of 16kg in metal cans

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 AjSB "Two-Pack reactive performance coatings": 500g/l (Limit 1.1.2010). V.O.C. content of the ready to use product <500g/l.
UFI code	<i>Component A:</i> 9KQ0-F06W-E00R-1P88 <i>Component B:</i> TNQ0-X0W9-R008-P0VM
Storage stability	2 years, stored in its original sealed packing, protected from frost, humidity and exposure to sunlight

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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