



QUARZOCEM ECOARIA

Highly photocatalytic
quartz based
mineral hardener
for industrial flooring



konstruktive • leidenschaft



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PRODUCT DESCRIPTION

QUARZOCEM ECOARIA is a highly photocatalytic quartz based mineral hardener designed for protection and surface finish of industrial floors. Suitable for its high mechanical strength and abrasion resistance for both internal and external industrial flooring subject to a medium / heavy and arduous traffic.

The product is applied by dry -shake method on freshly cast and level concrete, distributing the anhydrous product in one or more layers, manually or by mechanical means. Thanks to the active principle with photocatalytic properties, it helps to improve the quality of the air and to keep the surface of the construction clean. Photocatalysis is a natural phenomenon that modifies the speed of a chemical reaction through the action of light energy, leading to the formation of strongly oxidizing reagents that are able to decompose the organic and inorganic substances in the atmosphere.

Photocatalysis is thus an accelerator of the oxidation processes that already exists in nature, therefore allowing the pollutants in the environment to decompose more rapidly and preventing them from building up.

QUARZOCEM ECOARIA actively contributes towards reducing atmospheric pollution in cities and to keeping the surfaces of buildings clean over time by eliminating the fine dust, nitrogen oxides, carbon monoxide and sulphur issued by exhaust pipes of vehicles and heating systems. The photocatalytic action is active during rain, solar radiation or indoors with artificial light.

COMPOSITION

QUARZOCEM ECOARIA is a specially formulated, premixed powder product, consisting of special hydraulic binders with a photocatalytic action, pure natural quartz selected in appropriate granulometric curve and inorganic pigments.

APPLICATION

DRY SHAKE METHOD

Apply **QUARZOCEM ECOARIA** to freshly laid concrete using the dry shake method in one or two stages; it can be applied either manually or mechanically before the concrete starts to set, normally after 4-12 hours depending on the weather conditions.

MANUAL APPLICATION

For manual application, sprinkle the concrete surface with 1.5 to 2.5 kg/m². When **QUARZOCEM ECOARIA** has absorbed all of the concrete moisture, smooth the surface using a power float but use hand trowels for the edges and corners. Apply a second coat sprinkling the surface with 1.5 to 2.5 kg/m² and finish the surface compacting and levelling the hardener coating. Repeat with the power float to finish the industrial flooring, in order to obtain a perfect smooth surface. The joints should be cut after 24 to 48 hours of applying flooring using a diamond blade cutter and must be properly sealed.

MECHANICAL APPLICATION

For mechanical application, the dry shake product should be spread evenly in a single layer on the surface with 3 to 5 kg/m². When **QUARZOCEM ECOARIA** has absorbed all of the concrete moisture, smooth the surface using a power float but use hand trowels for the edges and corners. Repeat with the power float to finish the industrial flooring, in order to obtain a perfect smooth surface. The joints should be cut after 24 to 48 hours of





**MIXING
AND APPLICATION**

applying flooring using a diamond blade cutter and must be properly sealed.

PASTE METHOD

QUARZOCEM ECOARIA is mixed with water manually or by continuous mixer and applied to freshly laid concrete in paste form before the concrete starts to set, normally after 4-12 hours depending on the weather conditions.

MIXING AND APPLICATION

Mix the product with approx. 4.0-4.5 litres of clean water per 25 kg in a cement mixer. Pour the correct amount of water, and add the powder product. Mix **QUARZOCEM ECOARIA** for approx. 2'-3' minutes until smooth and free of lumps. Apply the product to fresh concrete with a maximum thickness of between 8 to 12 mm.

Complete industrial flooring by compacting and levelling after a few hours the mineral hardener with a power float but use hand trowels for the edges and corners. Repeat with the power float to finish the industrial flooring in order to obtain a perfect smooth surface. The joints should be cut after 24 to 48 hours of applying flooring using a diamond blade cutter and must be properly sealed.

ANTI SLIP RAMPS

Mix the product with approx. 4.0-4.5 litres of clean water per 25 kg in a cement mixer. Pour the correct amount of water, and add the powder product. Mix **QUARZOCEM ECOARIA** for approx. 2'-3' minutes until smooth and free of lumps.

Apply the product to fresh concrete with a maximum thickness of between 8 to 12 mm. After a few hours of applying product carry out manually with the help of an aluminum screed bar and appropriate trowel, a smooth finish border and within anti slip grooves alternating the diagonal. The fishbone pattern facilitates the flow of rainwater and increases the adhesion of vehicle tires to the industrial flooring.

**INDICATIVE
AMOUNTS
REQUIRED**

Dry shake method: 3.0-5.0 kg per m².
Paste method: 10.0-15.0 kg per m².

COLOUR

Grey.

PACKAGING

25 kg bags on disposable 1575 kg pallet (63 bags) protected by waterproof plastic wrap.

STORAGE

6 months in original intact packaging and stored in a dry place.

RECOMMENDATIONS

Do not apply on aged concrete or after the initial setting time. Do not apply at temperatures below + 5°C or above + 35°C. Do not apply to concrete that contains excessive amounts of bleed water; if necessary uniform the concrete surface by removing any puddles of water. Do not apply externally during rain or frost.

Do not apply externally with strong wind, direct sunlight or temperatures above + 35°C. During manual application use appropriate personal protection.





PRODUCT DATA

Appearance	powder	
Colour	grey	
Powder volume mass	~ 1500 kg/m ³	EN 1015-10
Aggregate strength	> 7 Mohs scale	
Maximum aggregate size	≤ 2,5 mm	

APPLICATION DATA

Water content of mix	16-18%	
Mixing ratio	1 bag + 4.0-4.5 ℓ of water	
Minimum application temperature	+ 5°C	
Maximum application temperature	+ 35°C	
Fit for walking on	≥ 24 hours	
Fit for traffic	≥ 48 hours	

PERFORMANCE DATA

Photocatalytic action	NO _x removed > 60%	
7th-day compressive strength	≥ 50.0 N/mm ²	
28th-day compressive strength	≥ 60.0 N/mm ² C60	EN 13892-2
28th-day flexural strength	≥ 6.0 N/mm ² F6	EN 13892-2
Reaction to fire	A1 _{fl} Class	EN 13501-1
Böhme abrasive strength	A9 Class	EN 13892-3
Release of corrosive substances	CT	EN 13892-2
Water permeability	NPD	EN 1062-3
Vapour permeability	NPD	EN 12086
Sound insulation	NPD	EN ISO 140-6
Sound adsorption	NPD	EN 12354-6
Thermal resistance	NPD	EN 12524
Chemical resistance	NPD	EN 13529

ACCORDING TO



EN 13813:2002
Material for cementitious screeds
CT-C60-F6-A9

REMARKS

Product for professional use. The data and instructions in this data sheet are based on our best practical and laboratory experience. They refer to laboratory tests and should be considered indicative. In view of the different conditions of use and application, which depend on factors over which Vimark has no control (type of surface, environmental conditions, technical indications for fixing, etc.), those who use the product are responsible for ascertaining whether or not it is suitable for the intended purpose. Thus our warranty obligation merely covers the quality and fade-free characteristics of the actual product, and exclusively in relation to the aforementioned data. Vimark reserves the right to make technical modifications without prior notice. This technical data sheet voids and substitutes all previous editions. Updates will be published on the web site www.vimark.com.

