

ROCK FLOOR 462

2 PART EPOXY ROLLER AND SEAL COAT

DESCRIPTION

Rock Floor 462 is a two part coloured epoxy resin. Suitable for use in hot and tropical climatic conditions.

USES

Rock Floor 462 may only be used by experienced professionals.

Rock Floor 462 is used as:

Roller coat for concrete and cement screeds with normal up to medium heavy wear, for example storage

Appearance / Colour

Resin - Part A Coloured, liquid
Hardener - Part B Transparent, liquid

Extended colour range

Under direct sun light there may be some discolouration and colour variation; this has no influence on the function and performance of the coating.

Shelf Life

24 months from date of production

Storage Conditions

The product must be stored in original, unopened and undamaged sealed packaging in dry conditions at temperatures between +5 °C and +30 °C.

Density

Part A	~1.64 kg/l
Part B	~1.00 kg/l
Mixed resin	~1.40 kg/l

(DIN EN ISO 2811-1)

All Density values at +23 °C.

Solid content by weight ~100 %

Solid content by volume ~100 %

TECHNICAL INFORMATION

Shore D Hardness

~76 (7 d / +23 °C) (DIN 53 505)

Abrasion Resistance

~41 mg (CS 10 / 1000 / 1000) (8 d / +23 °C) (DIN 53 505)

Compressive Strength

Resin (filled 1 : 0.9 with F34): ~53 N/mm² (28 d / +23 °C) (EN196-1)

Tensile Strength in Flexure

Resin (filled 1 : 0.9 with F34): ~20 N/mm² (28 d / +23 °C) (EN 196-1)

Tensile Adhesion Strength

> 1.5 N/mm² (failure in concrete) (ISO 4624)

Chemical Resistance

Resistant to many chemicals.

Thermal Resistance Exposure* Dry heat

Permanent +50 °C

Short-term max. 7 d +80 °C

Short-term max. 12 h +100 °C

Short-term moist / wet heat* up to +80 °C where exposure is only occasional (steam cleaning etc.).

APPLICATION INFORMATION

Mixing Ratio

Part A : Part B = 79 : 21 (by weight)

Consumption

~0.25 - 0.3 kg/m² applied as a roller coating

~0.9 - 1.2 kg/m² applied as a self-smoothing wearing course

These figures are theoretical and do not allow for any additional material due to surface porosity, surface profile, variations in level or wastage etc.

Ambient Air Temperature

+10 °C min. / +35 °C max.

Relative Air Humidity

80 % r.h. max.

Dew Point

Beware of condensation!

The substrate and uncured floor must be at least 3 °C above dew point to reduce the risk of condensation or blooming on the floor finish.

*Low temperatures and high humidity conditions increase the probability of blooming.

Substrate Temperature

+10 °C min. / +35 °C max.

and assembly halls, maintenance workshops, garages and loading ramps.

- Seal coat for broadcast systems, such as multi-story and underground car parks, maintenance hangars and for wet process areas, for example beverage and food industry

CHARACTERISTICS / ADVANTAGES

- Good chemical and mechanical resistance
- Easy application
- Liquid proof
- Gloss finish
- Slip resistant surface possible

ENVIRONMENTAL INFORMATION

LEED Rating

Rock Floor 462 conforms to the requirements of LEED EQ Credit 4.2: Low-Emitting Materials: Paints and Coatings SCAQMD Method 304 - 91 VOC Content < 100 g/l

APPROVALS / STANDARDS

Particle emission certificate Rock Floor 462 ISO 14644 - 1, class 4

PRODUCT INFORMATION

Chemical Base Epoxy

Packaging

Part A	15.8 kg containers
Part B	4.2 kg containers
Part A + B	20 kg ready to mix units
Part A	3 Drums 220 kg
Part B	1 Drum 177 kg
Part A + B	4 Drums 837 kg

Substrate Moisture Content

< 4 % pbw moisture content.

Test method: meter, CM-measurement or Oven-dry-method.

No rising moisture according to ASTM (Polyethylene-sheet).

Pot Life

Curing Time

Before applying Rock Floor 462 on Rock Floor 462 allow:

Substrate temperature	Minimum	Maximum
+10 °C	30 h	3 d
+20 °C	24 h	2 d
+30 °C	16 h	1 d

Times are approximate and will be affected by changing ambient conditions particularly temperature and relative humidity.

Applied Product Ready for Use

Temperature	Foot traffic	Light traffic	Full cure
+10 °C	~72 h	~6 d	~10 d
+20 °C	~24 h	~4 d	~7 d
+30 °C	~18 h	~2 d	~5 d

Note: Times are approximate and will be affected by changing ambient

APPLICATION INSTRUCTIONS

SUBSTRATE QUALITY / PRE-TREATMENT

The concrete substrate must be sound and of sufficient compressive strength (minimum 25 N/mm²) with a minimum pull off strength of 1.5 N/mm².

- The substrate must be clean, dry and free of all contaminants such as dirt, oil, grease, coatings and surface treatments, etc.
- Concrete substrates must be prepared mechanically using abrasive blast cleaning or scarifying equipment to remove cement laitance and achieve an open textured surface.
- Weak concrete must be removed and surface defects such as blow holes and voids must be fully exposed.
- Repairs to the substrate, filling of blowholes/voids and surface levelling must be carried out using appropriate products from Citychem range of materials.
- All dust, loose and friable material must be completely removed from all surfaces before application of the product, preferably by brush or vacuum.

MIXING

Prior to mixing, stir part A mechanically. When all of part B has been added to part A, mix continuously for 3 minutes until a uniform mix has been achieved.

When parts A and B have been mixed, add the quartz sand and if required the Extender T and mix for a further 2 minutes until a uniform mix has been achieved.

To ensure thorough mixing pour materials into another container and mix again to achieve a consistent mix. Over mixing must be avoided to minimise air entrainment.

Mixing Tools

Rock Floor 462 must be thoroughly mixed using a low speed electric stirrer (300 - 400 rpm) or other suitable equipment.

For the preparation of mortars use a forced action mixer of rotating pan, paddle or trough type. Free fall mixers should not be used.

APPLICATION

Prior to application, confirm substrate moisture content, relative air humidity and dew point. If > 4 % paw moisture content as a T.M.B. (temporary moisture barrier) system.

Primer:

Make sure that a continuous, pore free coat covers the substrate. If necessary, apply two priming coats.

By brush, roller or squeegee.

Preferred application is by using a squeegee and then backrolling crosswise.

Levelling:

Rough surfaces need to be levelled first.

Coating:

Rock Floor 462 as coating, can be applied by short piled roller (crosswise).

Seal coat:

Sealer coats can be applied by squeegee and then back-rolled (crosswise) with a short-piled roller.

CLEANING OF TOOLS

Clean all tools and application equipment with Thinner immediately after use. Hardened and/or cured material can only be removed mechanically.

MAINTENANCE

To maintain the appearance of the floor after application, Rock Floor 462 must have all spillages removed immediately and must be regularly cleaned using rotary brush, mechanical scrubbers, scrubber dryer, high pressure washer, wash and vacuum techniques etc. using suitable detergents and waxes

FURTHER DOCUMENTS

Substrate quality & Preparation

Please refer to Citychem Method Statement: "EVALUATION AND PREPARATION OF SURFACES FOR FLOORING SYS."

Application instructions

Please refer to Citychem Method Statement: "MIXING & APPLICATION OF FLOORING SYSTEMS".

LIMITATIONS

Do not apply Rock Floor 462 on substrates with rising moisture.

- Freshly applied Rock Floor 462 must be protected from damp, condensation and water for at least 24 hours.
- For areas with limited exposure and normally absorbent concrete substrates priming is not necessary for roller or textured coating systems.
- For roller / textured coatings: Uneven substrates as well as inclusions of dirt cannot and should not be covered by thin sealer coats. Therefore both substrate and adjacent areas must always be prepared and cleaned thoroughly prior to application.
- The incorrect assessment and treatment of cracks may lead to a reduced service life and reflective cracking.
- For exact colour matching, ensure the Rock Floor 462 in each area is applied from the same control batch numbers.
- Under certain conditions, underfloor heating combined with high point loading, may lead to imprints in the resin.
- If heating is required do not use gas, oil, paraffin or other fossil fuel heaters, these produce large quantities of both CO₂ and H₂O water vapour, which may adversely affect the finish. For heating use only electric powered warm air blower systems.

BASIS OF PRODUCT DATA

All technical data stated in this Product Data Sheet are based on laboratory tests. Actual measured data may vary due to circumstances beyond our control.

ECOLOGY, HEALTH AND SAFETY

For information and advice on the safe handling, storage and disposal of chemical products, users shall refer to the most recent Safety Data Sheet (SDS) containing physical, ecological, toxicological and other safety-related data.



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