

Mozaico

Highly decorative thin-set epoxy resin terrazzo flooring system



Description

Mozaico is an epoxy resin terrazzo system harnessing a range of decorative aggregates, creating a highly decorative seamless terrazzo surface. Mozaico has all the beauty of a conventional marble terrazzo floor with the added advantages of chemical resistance, thin section superior durability. Mozaico may be used in environments where hygiene, durability and the highest order of aesthetics are of paramount concern. Typical areas are in health care, showrooms, public buildings, shopping centres, airports and reception areas.

Appearance

Mozaico is trowel applied on site then ground and polished using mechanical equipment to reveal a highly decorative finish with a seamless, smooth gloss surface with a solid background colour embedding a range of 3 to 9 mm decorative chips. Decorative chips include mother of pearl, coloured marbles and granites, clear and coloured glass, coloured polyester chips or mirror glass. Grinding and polishing generally removes approximately 2 mm of the applied thickness. Therefore the surface flatness of the sub-floor has a marked effect on application and finished thickness, amount of grinding necessary and wastage.

Advantages

- Seamless.
- Highly decorative.
- Easily cleaned.
- Low odour.
- High abrasion resistance.
- Chemically resistant to common liquids.

Suitable Substrates

Concrete and polymer modified cementitious screeds.

Typical Properties, 28 days at 20 °C

BS 8204-6	Type 8
Compressive strength (BS6319)	> 75 MPa
Adhesion to concrete (BS EN 1504-2):	> 1.5 MPa
Shore D hardness	74
Slip resistance (BS 7976-2)	> 50 dry
Critical radiant flux (ASTM E648-10)	0.99 W/cm ²

The typical physical properties given above are derived from testing in a controlled laboratory environment. Results derived from testing field-applied samples may vary dependent upon site conditions. The slip resistance figures given above are affected by application techniques and prevailing site conditions. Slip resistance can reduce over time due to poor maintenance, general wear or surface contaminants. Good housekeeping practices should be observed. Critical radiant flux applies to system detailed in independent test report available on request.

Cure Schedule at 20 °C

Working life of full packs * 20 minutes

* Usable working life of material following mixing and immediate spreading as per the application instructions.

Finished floor *

Cure time to light pedestrian traffic	16 hours
Cure time to light wheeled traffic	24 hours
Cure time to heavy duty traffic	48 hours
Full chemical resistance	7 days

* The above cure times are approximate and given as a guide only. These times can vary due to prevailing site conditions.

Thickness (Before Grinding)

10 - 12 mm

Designs Available

Range	Background Colour	Decorative Chips
Classic	Off-white	6 blends of coloured marble & granite
Elegance	Off-white	5 blends of clear & coloured glass
Spectrum	8 standard colours	Clear glass
Inspiration	9 standard colours	Mother of pearl and mirror glass
Expression	8 standard colours	Mirror glass

Tailor-made designs can be created combining custom background colours and decorative chips. Please contact your Resdev representative for further information.

Pack Size

30.50 kg

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Coverage*

Pumaprime SF	0.2 - 0.3 kg/m ²
Silica sand scatter (1– 2 mm)	0.5 kg/m ²
Mozaico	22 kg/m ² @ 10 mm
Mozaico Grout	0.1—0.2 kg/m ² /coat (1 - 3 applications required)
Mozaico Topcoat	0.1 kg/m ² /coat (2 coats recommended)

* Coverage figures given are theoretical. Practical coverage rates may vary due to wastage factors and the type, condition, profile and porosity of the substrate.

Dividing Strips

Dividing strips of aluminium, zinc alloy or brass may be fitted to separate different finishes and designs prior to application of Mozaico screed.

Application Conditions

Ideal ambient and substrate temperature range is 15 - 25 °C. Localised heating or cooling equipment may be required outside this range to achieve ideal temperature conditions. The aggregate can be stored in a cool area (or warm area in the case of low ambient temperature) in order to control product temperature and working life. The substrate and uncured floor must be kept at least 3 °C above the dew point to reduce the risk of condensation or blooming on the surface, from before priming to at least 48 hours after application.

Surface Preparation

Inadequate preparation will lead to loss of adhesion and failure. Grinding, light vacuum-contained shot-blasting or planing is recommended. Percussive scabbling or acid etching is not recommended. Refer to the Resdev Guide to Surface Preparation for further information.

Priming

Priming should be carried out using Pumaprime SF, Pumaprime TC or Pumaprime DPM as site conditions or techniques dictate.

Mixing

Mozaico is typically a four component product although some custom blends may vary due to the aggregate blend. Prior to mixing, the temperature of the three components must be between 15 and 25 °C. Pre-mix the coloured resin component before use. Add the hardener component to the coloured resin component and mix using a low speed electric mixer (300 - 400 rpm) for 1 - 2 minutes until homogeneous. Decant the mixed material into a rotary drum mixer and add the aggregate component in stages, mixing for a minimum of 3 minutes until a homogeneous mix is obtained. For colour consistency, it is important that mixing times are kept constant from unit to unit and should be accurately timed from the moment the aggregate is added.

Application

Application, grinding and polishing of thin-set resin terrazzo is a highly skilled process and should invariably be left to experienced contractors. A general outline of the application procedure is as follows:

1. Prime the prepared surface and partially broadcast with silica sand to aid application of the Mozaico screed.
2. Install dividing strips as required by the design.
3. Mix and apply the Mozaico screed (4 components) and finish with a steel float to levels required / top of divider strips.
4. When cured, carry out coarse diamond grinding (typically 25/36 grit) to remove 1 or 2 mm of the epoxy surface until the decorative chips are uniformly and completely exposed.
5. Grout the surface with Mozaico Grout ensuring that all pinholes and voids are completely filled. Repeat where necessary.
6. Carry out final grinding and polishing anything up to 10,000-grit depending on surface finish requirements.
7. Apply Mozaico Clear Topcoat. Repeat as necessary.
8. Apply high solids acrylic floor polish according to manufacturer's instructions.

Cleaning

Regular cleaning is essential to enhance and maintain the life expectancy, slip resistance and appearance of the floor. Mozaico can be easily cleaned using industry standard cleaning chemicals and techniques. Refer to Resdev's Seamless Resin Terrazzo Cleaning and Maintenance Guide.

Health and Safety

Refer to product Safety Data Sheet before use.

EU Directive 2004/42/EC

Complies with category j type SB (< 500 g/l). The VOC content of Mozaico is approximately 44 g/l.

Storage

Store in a weatherproof building at 15°C to 20°C on pallets and away from walls. Keep dry and out of direct sunlight. Protect from frost. Storage should be arranged so that labels do not become detached from their containers and consignments can be used in order of batch number. Products should be used in strict batch rotation. Individual areas or rooms should be treated with product from a single batch to avoid the inevitable minor variations in shade resulting from batch manufacture.

Shelf Life *

12 months if stored in accordance with the above recommendations.

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Limitations

Do not proceed with application if atmospheric relative humidity is, or is anticipated to be, >90% or if the surface temperature is <3 °C above the dew point. Application should not commence when the substrate temperature or the ambient temperature is, or is anticipated to be, <5 °C during the application or within the curing period. The design strength of concrete surfaces must be a minimum of 25 MPa compressive strength at 28 days. The manufacture of Mozaico is a batch process and despite close manufacturing tolerances, colour variation may occur between batches. Products from different batches should not be used on the same surface or surfaces close together. If mixed batches are unavoidable, it is best practice to use the different batches only in areas where the colour cannot be directly compared. Repairs should only be attempted using product from the same batch using the same application methods. Product should be reserved specially for this purpose. It is recommended that touching up is carried out up to a break in the floor or surface.

Mozaico is not 100% colour fast and may yellow over time. The rate of change will depend on UV light and heat levels and cannot be predicted. This will be more pronounced with lighter colours and blue shades and does not compromise the product's performance characteristics.

Slight shade and aesthetic variation may occur between units due to natural variations in sand, marbles, granites and other naturally occurring materials. Laboratory produced samples may vary slightly due to natural variations in aggregate batches and size gradings. If critical, a sample patch should be installed on site of at least 10 m².

Technical Advice

For further information on this or any other Resdev product, please contact our office.

Note

The information contained in this document, and all further technical advice given is based on our present knowledge and experience. However, it implies no liability or legal responsibility on our part. In particular, no warranty or guarantee of product performance in the legal sense is intended or implied as the conditions of use and the competence of any labour involved in the application are beyond our control. Properties listed are for guidance purposes only. We reserve the right to make any changes according to technological progress or further developments.

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CE		13	DOP RV0045 to 49
EN 13813 SR-B2,0 Synthetic resin screed material for use internally in buildings not subject to reaction to fire regulations			
Reaction to fire	NPD	Impact resistance	NPD
Release of corrosive substances	SR	Sound insulation	NPD
Water permeability	NPD	Sound absorption	NPD
Wear resistance	NPD	Thermal resistance	NPD
Bond strength	B2,0	Chemical resistance	NPD

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