

Mozaico Integra ESD

Highly decorative anti-static polyurethane resin terrazzo flooring system



Description

Mozaico Integra ESD is an anti-static polyurethane resin terrazzo system harnessing a range of inert decorative granite and flint aggregates creating a highly decorative seamless terrazzo surface. **Mozaico Integra ESD** has all the beauty of a conventional marble terrazzo floor with the added advantages of high chemical resistance and thin section superior durability. **Mozaico Integra ESD** may be used in static sensitive environments where hygiene, durability and the highest order of aesthetics are of paramount concern. Typical areas of use are process areas, laboratories, health care, clean rooms etc.

Appearance

Mozaico Integra ESD is trowel applied then ground and polished using mechanical equipment to reveal a highly decorative finish with a seamless, smooth surface with a solid background colour embedding a range of 2 to 5 mm decorative chips. Decorative chips are composed of flint and granite to give the highest order of chemical resistance, superior to that of marble. Grinding and polishing generally removes approximately 2 mm of the applied thickness. The surface flatness of the sub-floor has a marked effect on application and finished thickness, amount of grinding necessary and wastage.

Advantages

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

Suitable Substrates

Concrete and bonded polymer modified cementitious screeds.

Typical Properties, 28 days at 20 °C

BS 8204-6	Type 8
Adhesion to concrete (BS EN 1504-2):	> 1.5 MPa
Slip resistance (BS 7976-2)	> 36 dry
Electrical Resistance to Ground (500 V):	
BS EN 1081 (R ₂)	< 10 ⁸ Ω
BS EN 61340-5-1	< 10 ⁹ Ω
BS 2050	Clause A.4.1

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.

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 pedestrian traffic/grinding 24 hours (minimum)
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

Tailor-made designs can be created combining custom background colours and decorative chips. Please contact your Resdev representative for further information. **Mozaico Integra ESD** is not colour fast and may yellow over time. The rate of change will depend on UV light and heat levels and cannot be predicted. Due to the conductive elements some colours may not be available contact the Technical Department for confirmation of colours available and the colour will be darker than the corresponding non-ESD product. There is a possibility of shade differences between mixes if mixing times/conditions vary, however this does not compromise the product's performance or chemical resistance characteristics.

Pack Size

29.4 kg

Coverage *

Pumaprime ESD	0.25 kg/m ²
Mozaico Integra ESD	22 kg/m ² @ 10 mm
Mozaico Integra Grout	0.15 - 0.20 kg/m ² /coat (several applications required)

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

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 from before priming to at least 48 hours after application.

Resdev Limited

Pumafloor House, Ainleys Industrial Estate
Elland, West Yorkshire, HX5 9JP, England
Tel: +44 (0) 1422 379131
fax: +44 (0) 1422 370943
info@resdev.co.uk
www.resdev.co.uk



Mozaico Integra ESD

Highly decorative anti-static polyurethane resin terrazzo flooring system

Page 1 of 3
25/07/13

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. Anchorage grooves should be cut to a width and depth of twice the thickness of the floor finish at the edges, bay joints, up-stands, drains, doorways and at regular points across the floor, and all debris removed. Refer to the **Resdev Guide to Surface Preparation** for further information. Conductive floors must be laid to a uniform thickness which may require the use of a scratch coat.

Priming

The substrate should have a relative humidity of <75% otherwise Pumaprime DPM should be used.

Initial priming should be carried out using **Pumaprime SF** to isolate the substrate and provide a dust free surface to receive the copper tape. Take particular care to prime but not fill the anchor grooves. Spread onto the substrate and roll with a short-haired roller to ensure even coverage until the surface is completely wetted out, taking care to avoid pooling. Apply around the edges of and into anchorage grooves by brush, to allow even spreading and avoid pooling. If, when cured, there are dry patches, a further primer coat is required. Allow to cure for a minimum 12 hours at 20 °C. If the primer has been left to cure for >48 hours then the primer surface should be mechanically abraded and the area re-primed. Failure to do so may result in pin-holing of the surface topping. Install copper tape and connect earth linkage cables to the primed substrate. Apply **Pumaprime ESD** at a rate of 0.25 kg/m² with a short-haired roller ensuring even coverage and avoiding pooling. When cured, ensure there are no glossy or bare patches. If so, re-prime using **Pumaprime ESD** (see separate datasheet). Verify the conductivity of the primer before continuing (< 5 x 10⁴ Ω).

Mixing

Mozaico Integra ESD is a four component product consisting of resin, hardener, aggregate and a small bag of carbon fibre. Prior to mixing, the temperature of the components must be between 15 and 25 °C. Pre-mix the coloured resin component before use. Pour the resin and hardener into a suitable 10 litre mixing vessel followed by the full contents of the bag of carbon fibre 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. **Mozaico Integra ESD** is a very dry mix due to the high carbon fibre content and great care should be taken to close the material as much as possible on initial application. Please note the product will have a hairy appearance on closing and this is normal. After the first grind, the product will exhibit an A general outline of the application procedure is as follows:

1. Prime the prepared surface using **Pumaprime ESD**.
2. Mix and apply the **Mozaico Integra ESD** screed (4 components) and finish with a steel float to levels required.
3. 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. Vacuum completely to remove dust from pinholes.
5. Grout the surface with **Mozaico Integra Grout** ensuring that all pinholes and voids are completely filled. Allow to cure, re-polish and repeat until fully grouted.
6. Carry out final grinding and polishing anything up to 10,000-grit depending on surface finish requirements.
7. Apply a suitable static dissipative cross-linked 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 Integra ESD** 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).

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.

Resdev Limited

Pumafloor House, Ainleys Industrial Estate
Elland, West Yorkshire, HX5 9JP, England
Tel: +44 (0) 1422 379131
fax: +44 (0) 1422 370943
info@resdev.co.uk
www.resdev.co.uk



Mozaico Integra ESD

Highly decorative anti-static polyurethane resin terrazzo flooring system
Page 2 of 3
25/07/13

Shelf Life *

Resin and hardener components 12 months
Aggregate component 6 months

* If stored in accordance with the above recommendations.

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 Integra ESD** 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 Integra ESD 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, granites and other naturally occurring materials. Laboratory produced samples may vary slightly due to natural variations in aggregate batches and size grading. 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.

Resdev Limited, Pumaflor House, Ainleys Industrial Estate Elland, West Yorkshire, HX5 9JP, England			
		13	DOP RV0052
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

Resdev Limited

Pumaflor House, Ainleys Industrial Estate
Elland, West Yorkshire, HX5 9JP, England
Tel: +44 (0) 1422 379131
fax: +44 (0) 1422 370943
info@resdev.co.uk
www.resdev.co.uk



Mozaico Integra ESD

Highly decorative anti-static polyurethane resin terrazzo flooring system
Page 3 of 3
25/07/13