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Altro Prime™ ceramic

Epoxy primer for densified glazed surfaces
Technical and installation data sheet

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Product description

Altro Prime ceramic is a twin-pack solvent-free epoxy primer designed to provide a secure bond to suitable and prepared glazed surfaces. When installed in conjunction with the application detail it will provide a strong bond between the prepared substrate and the subsequent Altro resin overlayment.

Typical areas of use

- Fully surveyed and sound flooring installations that comprise of fully and semi vitrified ceramics, quarry tiles, marble, cementitious terrazzo.

Advantages

- Allows overlayment with synthetic resin flooring systems
- Outstanding adhesion to prepared glazed surfaces
- Reduced down time subject to subfloor suitability

Sustainability

Altro's steps to sustainability program seeks to optimise our performance with respect to the planet's resources. Please refer to www.altro.com for further information.

Typical physical properties

Application temperature	10°C to 25°C
Usable working life	20 minutes @ 20°C
Intercoat period	minimum 8 hours to 16 hours maximum @ 20°C
Bond strength EN 4264	B3,5

If the intercoat period is exceeded the surface should be lightly abraded and vacuumed before further coats are applied. Ensure good airflow and ventilation to assist with cure.

Packaging

Altro Prime ceramic is available in a two part composite pack in 6kg size.

Coverage

6 kg unit: 18 m²/6 kg

The coverage rate of Altro Prime ceramic will be directly dependant on the porosity and profile of the substrate as well as other contributory factors such as ambient and substrate temperature.

Stated coverage rates should be referred to for guidance only and cannot be relied upon to determine exact quantities.

Storage

Ensure that the product is received in good order and store in a dry, frost free environment, ideally between 15°C and 20°C for at least three days before laying. Excessively high and low storage temperatures will affect the laying performance of the product.

Suitable substrates

Altro Prime ceramic may be applied to a variety of sound and stabled substrates including, but not limited to fully and semi vitrified ceramic tiles, quarry tiles, polished marble and cementitious terrazzo.

For all proprietary subfloor systems refer to the manufacturer for recommendations and seek further guidance from Altro.

FeRFA, The Resin Federation, does not recommend Calcium Sulphate, Anhydrite or Hemi-Hydrite screeds for overlayment with synthetic resin surfaces.

Substrate requirements

Substrates should be dry, structurally sound and free from contamination, friable materials or laitance which may affect either the adhesion or penetration of the resin system. Substrates should have no visual evidence of fracturing or subsidence. All residues of old paint coatings and dust must be removed. Substrates should achieve 26N/mm² compressive strength (BS EN 12504-2) and surface tensile strength 1.5N/mm² (BS EN 13892-8). Substrates must include an effective damp proof membrane and contain residual moisture not greater than 5% by weight (75% R.H.) to BS 8203.

Please consult Altro or FeRFA Guide to the Specification and Application of Synthetic Resin Flooring for further information.

Substrate preparation

Surface preparation is the most vital aspect of resin flooring application. Inadequate preparation will lead to loss of adhesion and failure. The floor should be thoroughly degreased prior to mechanical treatment. The substrate in question will dictate the method of preparation. In the case of a concrete floor, preparation by dust enclosed diamond floor grinder may be appropriate, or if of a sufficient area for economic reasons, should be lightly shot blasted to break the glaze and leave a textured surface free from contamination. The prepared surface should be readily wet when tested with water drops. After preparation the substrate should be surveyed for soundness. Any failure of the substrate will always reflect through to the topping. Hollow, loose tiles and friable grout should be removed and reinstated. Treatment of local repairs such as cracks and holes, improvement or modification of levels and removal of high spots, should be undertaken prior to the flooring installation.

All grout joints should be sound and ideally of epoxy origin. These should be treated with additional Altro Prime ceramic to bring level with the tile surface and prevent the grout lines reflecting through. Thin coatings reflect the surface texture.

High spots may lead to local premature wear. Excessive profiles as a result of inappropriate surface preparation may significantly affect application, coverage and performance.

Planning

Before proceeding with the installation, careful consideration should determine the best way of installing the Altro system. Efforts should be made to minimise day joints and optimise the open time of the product (i.e. minimise the distance between mixing and laying). It is best to also consider the effect of external influences on the final installation. Time spent at this stage will be invaluable towards the success of your installation.

Application

The following application guide is based on laboratory and simulated site conditions. However, when installations conditions differ appreciably from those detailed by Altro, the performance characteristics of both mixing and laying may not be as expected. To achieve the best results at all times please endeavour to establish the correct conditions which in turn will allow the materials to be laid effectively and meet your customer's expectations.

Installation conditions

Apply in well ventilated areas. Both the slab and air temperature should be greater than 10°C and rising, up to 25°C. It is not advisable to mix and lay epoxy resin products outside the range 10°C to 25°C. Ambient conditions should be maintained at least 3°C above dew point or below 75% R.H. during the initial stages of cure. At site temperatures below 13°C cure times will be substantially increased unless some form of external heating is used. It must be recognised that the concrete slab temperature will generally be lower than the air temperature, often as much as 10°C, and this will govern the rate of cure. As the resin flooring cures, in condensing conditions moisture vapour may condense onto the surface and cause 'blooming' and affect subsequent adhesion. Cold, wet or humid conditions, and limited airflow, can result in condensation on the part-cured floor. The workability, open-time, cure development and return to traffic will be significantly affected by ambient conditions.

Mixing equipment

- Slow speed drill (200-500rpm), such as MM17 *
- Mixing paddle, such as MR2 60B *

* All tool number references relate to Refina Ltd 01202 632 270

Product installation

Pour all of the hardener into the base and mix for 2 minutes using a drill and paddle. Excessively vigorous mixing should be avoided as this can lead to undesirable air entrainment. If the mixing area is not adjacent to the laying area the time required to transfer the mixed material will reduce the open installation time. **Remember to always use the correct PPE.**

Pour the mixed material into either a large roller tray and apply over the prepared substrate using a low-loss medium pile synthetic roller or lay a river of the material over the prepared substrate and distribute evenly using a dense foam rubber squeegee. Always fully treat the surface and finish using a roller to ensure that a uniform and even coverage is achieved. Allow the system to cure for a minimum of 8 hours at 20°C, but no longer than 16 hours at 20°C before over-coating. If the over-coating time period is exceeded, the surface should be lightly abraded and vacuumed before further coats are applied. After cure ensure that all substrate porosity has been satisfied. If there are dry areas of substrate apply a second coat, avoiding undue ponding. If the primer is to be overlaid with a screed then the prime should be lightly seeded with a sharp angular 0.7mm – 1.2 mm quartz sand. Do not seed the primer if you are going to overlay with a self-levelling flow system. Ensure good air-flow and ventilation to assist with cure. Never leave unused material in the bucket to cure as a strong exothermic reaction will occur.

Joints

The spacing of movement joints must be determined by the design of the subfloor. All live movement joints in the subfloor must be continued through the resin flooring. In all instances the type and positioning of movement joints should be agreed at the design stage between all parties concerned. Please refer to Altro or FeRFA's Guide to the Specification and Application of Synthetic Resin Systems for further guidance.

All joints should be filled with Altro Expand™ flexible jointing compound. Please see Altro Expand data sheet for information.

Protection

Whilst of an extremely durable nature these floor systems must be thoroughly protected from the rigours and abuse that exist during the ongoing contractual works. Untreated felt paper will suffice as protection from light traffic, however if protection is required from other trades then the following protection option should be considered. Where heavier access is required then a more suitable medium to take the loadings, such as shuttering ply or Correx by Cordek, should be placed on top of the untreated felt paper. The resin system should have cured for at least 48 hours prior to placing the protection. No polyethylene sheets, linseed-treated hardboard, print or dyed card should be placed in contact with the resin surface. All joints in the protection medium should be taped, and all accidental spillages should be recovered immediately by removal and reinstatement of the protection. Damage will occur to the system if the guidance is not followed.

Cleaning (during installation)

All tools and equipment should be regularly cleaned using AltroSolve™ EP to reduce build up and maintain the quality of the installation. Avoid contamination of the resin surface with solvent as this may cause localised bloom to occur. **Ensure that the correct PPE is worn at all times.**

Disposal

Due diligence must be adopted if accidental spillages occur. Recover using absorbent granules, transferring into a suitably marked container. Disposal of all empty containers and accidental spillages should be in accordance with the local waste disposal authority.

Regular cleaning regime of Altro Resin flooring systems

Optimum slip resistance can only be maintained with regular cleaning. Please refer to specific data sheet for the Altro Resin system.

Please obtain the correct material safety data sheets from Altro prior to beginning your installation.

Always wear correct PPE whilst installing resin products.

Altro Prime ceramic, Altro Expand, Altro Solve EP, mixing paddles and squeegees are available through the Resins Sales Desk.

To order E-mail ResinSalesDesk@altro.com

Call 01300 320620

Fax 01300 321122

NOTE: "Altro Ltd" ("Altro") endeavours to ensure that advice and information given in Product Data Sheets, Method Statements and Material Safety Data Sheets (all known as Product Literature) is accurate and correct. However, where Altro has no control over the selection of its products for particular applications, it is important that any prospective customer, user or specifier, satisfies him / herself that the product is suitable for the intended application. In this process, due regard should be taken of the nature and composition of the background / base and the ambient conditions both at the time of laying / applying / installing / curing of the material and when the completed work is to be brought into use.

However, as site conditions and the execution of the work are beyond our control, we accept no resultant liability.

Altro's policy is one of continuous research and development and we reserve the right to update our products and information at any time without prior notice.

If you'd like any more information or guidance please get in touch, we're here to help.

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