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# Altro Crete™ cove

Complementary cove system for Altro Crete variants  
Technical and installation data sheet

October 2016

## Product description

**Altro Crete cove** variant is a complementary cove system designed to be used in conjunction with the Altro Crete resin floor systems in areas where a covered finished is required. Based on the same resin technology as the Altro Crete cove variants it provides excellent chemical resistance.

## Standard colours

Altro Crete cove is available in the 5 standard colours. Due to the difference in the aggregates used and application methods, the Altro Crete cove products will have a slight difference in colour and texture when compared to Altro Crete flooring variants. Where a solid uniform colour, or a smoother finish is desired a roller applied coating of Altro Crete top-coat maybe applied.

## Typical areas of use

- Wet production areas
- Kitchens
- Food and beverage production areas
- Warehouse and storage
- Wash down bays
- Pot wash areas

## Advantages

- Fully sealed surface
- Low odour and non-tainting
- Excellent impact and abrasion resistance

## 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](http://www.altro.com) for further information.

## Chemical resistance

Altro Crete offers excellent resistance to a range of commonly used chemicals. However, premature contact with chemicals (including water) during the curing process may give rise to discolouration, staining and variation in gloss. In all cases of chemical spillage, it is essential that the spillage be immediately removed and the surface washed down with clean water, removing water by wet vacuum after operation. Although some chemicals may cause discolouration, this may not affect the durability and integrity of the resin screed. Please refer to Altro and FeRFA Guidance Note No.3 for further information.

## Typical physical properties

Speed of cure	Light foot traffic	24 hours @ 20°C
	Full cure	7 days @ 20°C
Application temperature usable working life		10°C to 25°C
		30 minutes @ 20°C

### Packaging

Altro Crete cove is a four component composite system made up of base, hardener, aggregate and colour pack.

Total mixed weight of 17kg.

### Coverage

Material guide coverage of 38mm radius x 100mm high cove.

7.9 linear metres per 17kg unit.

Material usage is dependent upon temperature, surface profile and porosity; stated coverage rates should be referred to for guidance only and cannot be relied upon to determine exact quantities.

Although stringent quality assurance processes are employed, when colour consistency is required, a single batch should be used.

### 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 Crete cove may be applied to a variety of substrates including, but not limited to, concrete, polymer-modified cementitious screeds, terrazzo, 25mm marine plywood (consult Altro for further guidance). For all proprietary subfloor systems refer to the manufacturer for recommendations and seek further guidance from Altro.

For the upstands suitable substrates include marine grade plywood, cement render and concrete blocks. These must be stable and free from any movement. Experience shows that plaster boards and skimmed plaster are not suitable upstand substrates to apply Altro Crete cove onto.

FeRFA, The Resin Federation, does not recommend Calcium Sulphate, Anhydrite or Hemi-hydrate 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. All residues of old paint coatings and dust must be removed.

Substrates to achieve 30N/mm<sup>2</sup> compressive strength (BS EN 12504-2) and surface tensile strength 1.5N/mm<sup>2</sup> (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 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 leave a textured surface free from contamination.

If the floor has been treated with a cementitious surface improver, then the surface should be prepared in accordance with the manufacturer's recommendations, or abraded with an STR machine followed by thorough vacuuming.

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

## 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 (i.e. direction of light from windows etc.). Time spent at this stage will be invaluable towards the success of your installation.

The Altro Crete cove variant is designed to be laid at the required thickness at the floor to wall junction to be uniform with the installed Altro Crete flooring variant but is not designed to be applied thicker than 4mm on the upstand section. Often for cosmetic reasons coves are continued 100mm up the wall but there is no upper limit to the application height of the Altro Crete cove when applied at 4mm on the vertical. Some applications may make use of metal floor trims to ensure a neat transition from the floor to coving material. This should not be used in lieu of a mechanical rebate.

Altro recommend that stainless steel mixing, laying and application tools are used in this process. Metal transfer from mild steel tools may result in discolouration of the screed which will be unacceptable to your customer. This will be particularly noticeable with pale colours, please contact Altro for further guidance.

Rebates and anchor points should be cut into the substrate prior to application of the primer.

## 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 between 10°C and 25°C. It is not advisable to mix and lay polyurethane resin products outside of this range. 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 10°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', a permanent clouding of the surface.

Cold, wet or humid conditions, and limited air flow, 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) \*
- Mixing paddle, such as MR2 60B \*
- Stainless mixing vessel \*

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

## Cutting rebates

Prior to priming a mechanical rebate should be formed at the floor to cove detail to avoid weakness at the most vulnerable zones, evenly distributing loads and stresses, preventing ingress of aggressive media to the subfloor and bond line and provide a neat finish to the flooring. This is normally formed by casting a chase when the concrete is laid or by cutting using a wet cut concrete saw.

The preferred dimensions of the rebate are twice the thickness of the screed in depth and twice the thickness of the screed in width.

Please refer to the Altro design and detailing diagrams.

## Priming the substrate

In order to achieve a uniform finish, prevent bubbles and maximise substrate adhesion, primer should be used. An Altro primer should be selected which is suited to the installation, and appropriate for the nature and moisture content of the substrate (seek further guidance from Altro).

The appropriate Altro primer should be applied in accordance with the product data sheet. Ensure that the substrate is well sealed and that all hungry areas are addressed before proceeding to install the system.

Both the floor and the upstand should be primed. While the primer is still wet broadcast kiln dried aggregate, (nominal 1mm) into the primer on the floor and upstand.

If the overcoating time period for the primer is exceeded, the surface should be lightly abraded and vacuumed before further coats are applied.

A second 'tack' primer coat is applied as part of the product installation.

## Product installation

Approximately 10 minutes prior to the application of the Altro Crete cove a 'tack' primer will need to be applied to the upstands to aid the application of the cove. Only apply the 'tack' primer to areas that the cove can be applied within a 10-40 minute window while the 'tack' primer is still live. Using a slow speed drill and paddle thoroughly mix together the Altro Prime standard base and hardener. To this add Altro TX until the mixture becomes paste like in consistency. (Approximately 0.5 litres of Altro TX per 1kg of Altro Prime standard.) Using a paint brush or similar apply the 'tack' primer to the upstands. Remember to always use the correct PPE.

Using a drill and paddle pre-mix the Altro Crete cove base, hardener and colour pack in a suitable container for 30 seconds prior to transferring into an appropriately sized mixing vessel.

While mixing add the Altro Crete Cove aggregate into the vessel and mix for a further 2 minutes.

Using a flat stainless steel trowel apply the mixed material to the upstand at a depth of 3-4mm. Excess material will make the application harder and more likely to slump.

Again using the flat trowel, apply the material to the floor section before dropping in some material into the floor/wall junction to form the fillet of the cove. Use a rounded coving trowel to finish the material and to give a completed cove. Ensure the material is well closed and uniform.

## 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 further 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.

The resin floor should reach full chemical cure in 7 days at 20°C. 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 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 Altro Solve PU to reduce build up and maintain the quality of the installation. **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.

## Cleaning guidance

Mop cleaning should be adequate to keep the cove sections clean. A cold / ambient pressure washer may be used if required, but the pressure should not exceed 1400psi. Warm water will offer improved cleaning.

- Sweep or vacuum the floor to remove debris
- For normal cleaning, dilute an alkaline detergent such, as Altro Clean 44 or similar, by 1:40 in clean water
- Alternatively, dilute by 1:10 for infrequent heavy cleaning
- Liberally apply the water and detergent solution to the floor, scrubbing with a deck scrubber, Altro UniPad or similar
- Pay particular attention to areas where residues may accumulate, such as internal corners of perimeter coves and around columns etc
- If possible, allow the detergent solution to remain on the floor for several minutes to break down deposits, but not sufficiently long to allow the solution to evaporate
- Remove the solution by wet vacuum recovery and follow this with a fresh water rinse, or rinse the solution into drains if permissible
- It is important that all detergent residue is removed from the textured surface of the floor. Detergent may become slippery which affects safety, or sticky which attracts and holds more dirt

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

**To order E-mail [ResinSalesDesk@altro.com](mailto:ResinSalesDesk@altro.com)**

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**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.

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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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