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Altro Prime™ oil tolerant

Solvent free primer for oil contaminated substrates
Technical and installation data sheet

September 2016

Product description

Altro Prime oil tolerant is a twin-pack, high-build, solvent-free epoxy resin surface treatment designed for oil contaminated substrates. When installed in accordance with the application instructions Altro Prime oil tolerant provides a strong bond between the substrate and the Altro Resin overlayment.

Altro Prime oil tolerant is supplied as a one or two coat system and is a suitable underlayment for Resin systems, smooth vinyl, safety vinyl and rubber flooring.

Typical areas of use

- Garage floors
- Engineering workshops
- Factory / warehouse refurbishment
- Oil contaminated substrates subject to a change of use

Typical physical properties

Application temperature	15°C to 22°C
Usable working life	20 ± 5 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.

Advantages

- Facilitates progression of fast track construction projects, by enabling the application of floor coverings over contaminated substrates without the requirement to replace the existing substrate.
- Outstanding adhesion to concrete under adverse conditions
- Provides for monolithic construction
- Ease of mixing & application: rapid application by roller, squeegee etc.; low viscosity
- Short curing cycles to allow for early overlayment

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.

Packaging

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

Coverage

6 kg unit: 18 m²/6 kg

We do not recommend exceeding 3m²/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 oil tolerant may be applied to a variety of sound and stabled 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.

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, laitance and contaminants which may affect either the adhesion or penetration of the Altro Prime oil tolerant system. All residues of old paint coatings and dust must be fully removed mechanically. Substrates to achieve compressive strength of 26N/mm² (BS EN 12504-2) and a surface tensile strength of 1.5N/mm² (BS EN 13892-8). Substrates must include an effective physical damp-proof membrane and contain residual moisture not greater than 5% by weight. The slab should be measured for the correct RH of 75% (when measured using a Hygrometer in accordance to BS 8203.) On substrates liable to direct hydrostatic pressure such as some basements, low lying buildings, in the absence of an integral DPM, a more substantial installation may be required.

Concrete floors must be constructed in accordance with the British Standards BS8204 Part 1, Code of Practice. Oil contaminated substrates which have an unsatisfactory tensile strength should be removed and repaired prior to treatment.

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. All surface contamination, old coatings, oil paint rubber and chemicals should be thoroughly removed in order to achieve a sound stable interface with exposed aggregates. All defects particularly pinholes should be treated prior to the installation of Altro Prime oil tolerant.

Oil contaminated substrates should be cleaned as follows:

1. Remove all residual surface contaminants by brush or scraper and dispose
2. Mechanically prepare the substrate.
3. As necessary apply an emulsifying detergent (Altro Clean™ 44 in accordance with manufacturer's instructions) to the surface with a suitable scrubbing machine with wet vacuum recovery. Ensure that the cleaning process has dissolved the surface contaminating oil, then immediately rinse down the area with clean water to completely remove all traces of cleaning chemical, and thoroughly vacuum.
4. The surface must be completely absent of free water (surface damp condition) the disposal of the contaminated water must be in accordance with the local regulations for disposal of waste.

Guide coverage for Altro Clean 44

Based on a 10-1 dilution rate, a guide coverage rate of approximately 100m² per 50 litres of diluted Altro Clean 44 cleaner. This figure is subject to the degree of oil contamination within the substrate, and may have to be adjusted accordingly.

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 15°C, up to 25°C. It is not advisable to mix and lay Altro Prime oil tolerant outside the range 15°C to 22°C, with room temperature being established 72 hours before, during and after. Ambient conditions should be maintained at least 3°C above dew point or below 75% R.H. during the initial stages of cure.

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.

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

Following cleaning of the contamination, and whilst the substrate remains damp, continue with application of the Altro Prime oil tolerant. Using a slow speed drill and paddle thoroughly mix the base for 30 seconds. Pour all of the hardener into the pre-mixed base and mix for a further 2 minutes. 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 all the mixed material into roller tray. Using either a low-loss medium pile synthetic roller, or dense foam rubber squeegee, distribute the material evenly and uniformly to fully treat the surface. Finish using a roller to ensure that a uniform and even coverage is achieved.

Care should be taken not to exceed the coverage rate of 18 m² per 6kg unit. It is important that the surface being treated has total film coverage to ensure no contamination migrates out into the proposed topping. Allow the Altro Prime oil tolerant to cure and carefully inspect the applied film for defects i.e. pinholes and areas of under thickness. If necessary, apply additional Altro Prime oil tolerant.

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 Altro Solve™ 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 oil tolerant, 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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