

## M12 RESIN FLOORING

To be read with Preliminaries/ General Conditions

### TYPE(S) OF FLOORING

#### 110A RESIN FLOORING

- Project:
- Location:
- Substrate:
- Preparation:
- Resin flooring system:
- Manufacturer: ALTRO RESIN SYSTEMS, Unit 3, Station Road Industrial Estate, Maiden Newton, Dorchester, Dorset, DT2 OAE
- Primer reference: **Altro Proof standard**
- Resin flooring reference: **Altro Flexiflow 2mm classic – FERFA Type 5**
- Application: **2mm** Nominal thickness
- Colour: TBA
- Accessories:
- Resin skirtings:
- Surface finish: In strict accordance with manufacturer's instructions.
- Flatness/Surface regularity:
- Sudden irregularities: Not permitted.
- Classification of surface regularity to BS 8204-6:
- SR1 - High
- Other requirements: **Please refer to Technical Data sheet in association with this specification.**

#### 110B RESIN FLOORING

- Project:
- Location:
- Substrate:
- Preparation:
- Resin flooring system:
- Manufacturer: ALTRO RESIN SYSTEMS, Unit 3, Station Road Industrial Estate, Maiden Newton, Dorchester, Dorset, DT2 OAE
- Primer reference: **Altro Proof standard**
- Resin flooring reference: **Altro Flexiflow 2mm comfort -FERFA Type 5**
- Application: **2mm** Nominal thickness
- Colour: TBA
- Accessories:
- Resin skirtings:
- Surface finish: In strict accordance with manufacturer's instructions.
- Flatness/Surface regularity:
- Sudden irregularities: Not permitted.
- Classification of surface regularity to BS 8204-6:
- SR1 - High
- Other requirements: **Please refer to Technical Data sheet in association with this specification.**

#### 110C RESIN FLOORING

- Project:
- Location:
- Substrate:
- Preparation:
- Resin flooring system:
- Manufacturer: ALTRO RESIN SYSTEMS, Unit 3, Station Road Industrial Estate, Maiden Newton, Dorchester, Dorset, DT2 OAE
- Primer reference: **Altro Proof standard**
- Resin flooring reference: **Altro Flexiflow 8mm acoustic – FERFA Type 5**

- Application: **6mm Flexiflow acoustic body coat + 2mm Flexiflow 2mm comfort body coat** Nominal thickness 8mm
- Colour:
- Accessories:
- Resin skirtings:
- Surface finish: In strict accordance with manufacturer's instructions.
- Flatness/Surface regularity:
- Sudden irregularities: Not permitted.
- Classification of surface regularity to BS 8204-6:
- SR1 - High
- Other requirements: **Please refer to Technical Data sheet in association with this specification.**

**This specification, in whatever format - electronic, is only valid if it is a true copy of the filed paper copy held at Altro. If you are in any doubt as to the authenticity of the copy, please ask for verification.**

## **PREPARATION OF SUBSTRATES**

### 210 TESTING MOISTURE CONTENT OF SUBSTRATES

- Drying aids: Remove minimum four days prior to test.
- Test: To BS 8203, Annex A using an accurately calibrated hygrometer.  
Location of readings: Corners, along edges, and at various points over the test area.
- Relative humidity before laying resin flooring (maximum): **75% R.H.**

### 210A SURFACE APPLIED DAMP PROOF MEMBRANE

- Manufacturer and reference: **Altro Proof standard, epoxy surface damp proof membrane by Altro Floors.**  
At readings between:  
<75% R.H. Altro Proof standard 1 coat  
>75% R.H. Altro Proof standard 2 coats

### 220 SURFACE HARDNESS OF SUBSTRATES

- General: Substrates must restrain stresses that occur during setting and hardening of resin and in service.
- Test for surface tensile strength to BS EN 13892-8:2002 **>1.5N/mm<sup>2</sup>.**
- Areas of non-compliance: Submit remedial proposals for repair or cut out and replacement.

### 230A PREPARATION OF SUBSTRATES GENERALLY

- Chases/ Saw cuts: Cut/ break out at skirting's, free edges, movement joints, etc. for termination of resin flooring.
- Blow holes, cavities, cracks, etc: Fill with repair product recommended by resin flooring manufacturer.
- Cleanliness: Remove surface contaminants, debris, dirt and dust.
- Texture of surface: Suitable to accept resin flooring and achieve a full bond over the complete area.
- All live movement / crack induced joints should be routed out to a minimum of 15mm primed and filled with an appropriate joint backing material and filled to the level of the substrate using **Altro Flexiflow before overlaying with the Altro Flexiflow body coat**  
Surface tensile strength **>1.5N/mm<sup>2</sup>.**

### 230B SUBSTRATES TYPES AND PREPARATION

- **Concrete:** Prepare the subfloor by lightly encapsulated bead blasting with vacuum dust recovery (grade to be established by installer) alternatively a high speed diamond grinding machine with vacuum recovery may be used.
- **Sand & Cement Modified Screed:** Prepare by means of rotary grinding m/c fitted with silicon carbide pads or tct discs fitted with vacuum recovery system to expose clean aggregate.

- **Timber Surface – RBP – Stable System Only:** Remove all contamination and using vacuum controlled recovery sanding machine. (Seek Altro advice for recommended construction detail and specification)
- **Metal Surface – Mild Steel:** Shot blast ensuring full removal of oil, grease, dirt, rust, paint coatings and any other foreign matter / surface contaminant. (Paragraph 260 refers).
- **Metal Surface – Galvanised Mild Steel:** Remove any surface contaminant and thoroughly clean and degrease before applying a proprietary etch primer in accordance with manufacturer's instructions.

**NB: In the event of underfloor heating please consult Altro for further guidance.**

Underfloor heating systems and service pipes should be installed within a weight bearing screed layer in accordance with BS EN 1264-4, Type A. The screed should be cementitious and of sufficient strength to withstand all structural, thermal and mechanical stresses and loads that will occur during service.

After the screed has reached the required strength requirement, the underfloor heating must be commissioned for a minimum of 7 days in accordance with BS EN 1264-4 and BS 8204-1. The heating must be tested and restricted to a maximum surface temperature of 27°C (BS 8203 and BS 5325). The underfloor heating must be turned off for at least 48 hours before and after the installation.

After preparation surfaces should be free from laitance, friable materials and contamination. The area should be thoroughly vacuumed to remove any remaining dust or debris.

Surface texture: Suitable to accept resin floorings and achieve a full bond over the complete area. Please note thinner resin floorings (coatings) will reflect the surface preparation in the finish.

**For the suitability of other substrates please consult Altro Technical.**

240 EXISTING SUBSTRATES

- Preparation: Remove surface imperfections, ingrained contaminants, coatings and residues.
- Contaminated areas: Submit proposals for removal and repair.

250 EXISTING TILE/ SHEET FLOOR COVERINGS

- Preparation: Remove coverings, residual adhesive, bedding, grouting and pointing.

260 METAL SUBSTRATES

- Cleaning: Shot blast to BS EN ISO 8501-1, grade Sa2.5.
- Treated surfaces: Clean. Free from visible oil, grease and dirt, mill scale, rust, paint coatings and foreign matter.

**LAYING FLOORING**

310A WORKMANSHIP

- Operatives: Trained/ Experienced in the application of resin floorings.
- Evidence of training/ experience: on request.
- Fillers and incorporated aggregates: Thoroughly mix in to ensure wetting. Avoid over-vigorous mixing resulting in excessive air entrainment.
- Appearance: Consistent.
- Curing: Allow appropriate periods between coats; ensure that all operatives wear soft soled shoes with site overshoes whilst working on the Altro Flexiflow. Ensure adequate protection before surface treatments, and before trafficking/use in accordance to manufacturer's instructions.
- Health & Safety: Refer to MSDS's. FERFA publication: Guide to PPE for use with in Situ Resin Floors and Surface Preparation.

320 CONTROL SAMPLES

- Complete areas of finished work in the following locations:

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- 320A SAMPLES
- General: Ensure that representative samples are provided (available from Altro) to the nominated sub-contractor in order to avoid any uncertainty over the expected finish.
- 330A PRIMING: CONCRETE / MODIFIED & POLYMER SCREEDS / RBP
- Application: Spread Altro Proof standard evenly to completely wet, penetrate and seal substrates in accordance with manufacturer's instructions. NB In the event that moisture levels exceed 75% R.H. 2 coats of Altro Proof standard should be used.
- 330B PRIMING: MILD STEEL
- After preparation an acetone wash should firstly be used to thoroughly wipe and degrease the area which should be allowed to evaporate. **Altro Proof standard** should then be applied before any oxidation takes place in accordance with manufacturer's instructions to leave an even closed film over floor area using a medium pile synthetic roller (ensure the substrate is fully sealed). Leave to cure for a maximum of 24 hours.
- 355A FLOW APPLIED COATED RESIN FLOORING – (**Altro Flexiflow classic**)
- Spread **Altro Flexiflow classic** mix onto prepared, primed substrate at rate of 9.7sq.m/25 kg unit. Immediately spike roller the area until uniform. (DO NOT EXCEED 15 minutes). Leave to cure 18 – 24 hours.
- 355B FLOW APPLIED COATED RESIN FLOORING – (**Altro Flexiflow comfort**)
- Spread **Altro Flexiflow comfort standard** mix onto prepared, primed substrate at rate of 10.1 sq.m/25 kg unit. Immediately spike roller the area until uniform. (DO NOT EXCEED 15 minutes). Leave to cure 18 – 24 hours.
- 355C FLOW APPLIED COATED RESIN FLOORING – (**Altro Flexiflow acoustic**)
- Spread Altro Flexiflow acoustic base layer onto prepared, primed substrate at rate of 3.2 sq.m /13 kg units. (a **minimum** of 6mm should be applied) immediately spike roller the area until uniform. (DO NOT EXCEED 25 minutes). Leave to cure after a minimum of 48 hours @20°C. Spread Altro Flexiflow comfort body coat mix onto the Altro Flexiflow at rate of 10.1 sq.m/25 kg unit. (A minimum thickness of 2mm should be applied.) Immediately spike roller the area until uniform. (DO NOT EXCEED 15 minutes). Leave to cure 18 – 24 hours.
- 380A SURFACE SEALER – **Altro Flexiflow standard topcoat**
- For optimum performance the surface should be lightly abraded to remove the surface gloss before the application of **Altro Flexiflow standard topcoat**. Apply a thin 1<sup>st</sup> coat (80g/m<sup>2</sup>) of **coloured top-coat** using a de-fluffed short nap microfibre roller that has been sufficiently pre-wetted applying the product to the floor from a paint scuttle and leave to cure between 18 – 24 hours. Apply a 2<sup>nd</sup> coat of **clear top-coat** as described above at a rate of 60g/m<sup>2</sup>.
- 380B SURFACE SEALER – **Altro Flexiflow slip-resistant topcoat**
- For optimum performance the surface should be lightly abraded to remove the surface gloss before the application of **Altro Flexiflow slip-resistant topcoat**. Apply a thin 1<sup>st</sup> coat of **coloured top-coat incorporating slip resistant additive** during the mixing stage (80g/m<sup>2</sup>) using a de-fluffed short nap microfibre roller that has been thoroughly pre-wetted applying the product to the floor from a paint scuttle and leave to cure between 18 – 24 hours. Apply a 2<sup>nd</sup> **clear top-coat** incorporating slip resistant additive as described above at a rate of 60g/m<sup>2</sup>.
- 390 SLIP RESISTANCE TESTING OF FINISHED RESIN FLOORING
- Standard: To BS 7976-2.
  - Timing: Give notice.
  - Notice period (minimum):
  - Results: Submit pendulum test values (PTV's), for both wet and dry states.
- 400 BOND STRENGTH OF RESIN FLOORING
- Contact surfaces: Substrate and fully cured resin flooring.

- Bond: In accordance with manufacturer's performance data.
  - Test: To BS 8204-6, clause 11.4 and BS EN 1542.
- 410 RESIN SKIRTINGS/UPSTAND (please select one option)
- Straight lay to timber skirting
  - Install PVC sit on skirting (similar colour) coat with **Altro Flexiflow classic /comfort body coat** and 2 coats of **Altro Flexiflow** topcoat. Installation of the sit on skirting should be done prior to the installation of the **Altro Flexiflow** to prevent dust and debris from contaminating the surface to be coated. Thoroughly clean and degrease the surface of the sit on skirting prior to installation.
- 410A SUBSTRATE
- To be a sound, stable structure incorporating a satisfactory damp proof membrane in accordance with the Code of Practice BS8000 where applicable. The type of construction suitable to receive Altro resin cove detail being either: flush jointed brickwork / block work, cement/polymer rendered brickwork / block work or 18mm R.B.P. (Resin Bonded Ply – fixed securely to a stable background) or insulated sandwich partition with stainless expamet mechanically fixed at cove detail.
- 410B MOISTURE CONTENT
- Where applicable the moisture content of the substrate construction should not exceed 75% R.H. or 5% moisture content by weight.
- 410C SURFACE PREPARATION
- Prepare existing wall surface as necessary to remove loose or friable material and leave clean, stable keyed surface.
- 410D JOINTS
- All vertical joints to be transferred through the cove detail and in-filled with **A suitable joint sealer** (primed with **Altro Proof standard**)
- 420 FREE EDGES OF RESIN FLOORING
- Transition to abutting floor finishes: Straight and smooth. Surfaces should be primed using **Altro Proof standard**. Where applicable suitable transition strip may be used between different surfaces. Recommendations available upon request
  - Retention of exposed resin edges: Chamfer edges to a depth of 1.5 times the nominal thickness of the system being installed to allow for toeing in.
    - Drawing reference RF4 refers.
- 430 SEALANT MOVEMENT JOINTS
- Location: Centre over movement joints in substrate.
  - Preparation and application: Method: Saw cut mechanically and pack out the cut groove with flexible packer (flooring contractor's choice) before applying sealant.
  - Joint width and depth to be agreed before installation.
  - Sealant: **Altro Flexiflow** (prime contact surfaces with **Altro Proof standard**)
  - Colour: (Matched to resin).
    - Drawing reference RF1 refers.
- 440 STRIP MOVEMENT JOINTS
- Location: Centre over movement joints in substrate.
  - Retention of resin edges: \_\_\_\_\_
  - Joint width: \_\_\_\_\_
  - Strip:
  - Manufacturer:
  - Product reference: \_\_\_\_\_
  - Insert type: \_\_\_\_\_
  - Colour: \_\_\_\_\_
  - Fixing: To exact finished level of resin flooring.
- 445 CLEANING & MAINTENANCE
- The frequency and procedure of cleaning and maintenance associated with this flooring system should be established with the Client/End User and carried out in accordance

with the Altro cleaning guidance and recommendations which are found on the product technical data sheet.

450 PROTECTION TO HANDOVER

- 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. Sufficient cure must take place before the protection is placed. The use of untreated felt paper or plain cardboard where light access is required should be considered. Where heavier access is required then a more suitable medium to take the loadings should be considered, such as shuttering ply or Corex by Cordek placed on top of the felt paper. All protection medium joints 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.

455 SITE CONDITIONS

- It is imperative that the correct site conditions prevail to ensure that the installing Contractor can maximise the opportunity of installing the Altro resin flooring system to a high standard. The correct lighting and temperature, together with the absence of all other trades for the duration and cure of the product will ensure its specified performance value will meet the Client's expectations.