THIS METHOD STATEMENT COVERS THE SURFACE PREPARATION, MIXING & APPLICATION OF **Ucrete UD200 (6mm-9mm-12mm)**

METHOD STATEMENT: Ucrete UD200 (6mm-9mm-12mm)

1. Preparation:

1.1. At the time of installation of the **Ucrete UD200** the substrate concrete should have a minimum tensile strength of 1.5 MPa, be more than 7 days old and the surface should be dry.

1.2. Surface laitance must be removed by mechanical action using suitable equipment including Captive Shot Blasting equipment, Concrete Planers and Scarifiers. Diamond grinding can be used for edge work etc. with limited access.

1.3. Anchor Grooves / Termination grooves (see below) to be cut into the substrate where not already present.

2. Detailing – Anchor Grooves and Termination Grooves:

2.1. Anchor Grooves / Termination Grooves must be present in the surface of the concrete within 75 mm of all 'free edges' these may be cast into the surface or cut subsequently. 'Free Edges' includes all joints, column bases, perimeter walls, drainage channels, door thresholds etc. **and every 4 metres across the floor in both directions.**

2.2. Anchor Joints are also required wherever movement is expected including adjacent to stainless steel channels, machine bases, around columns and at any construction joint in the substrate.

2.3. **NB: Anchor Grooves / Termination grooves are nominally square in section for the Ucrete Systems and should be twice the thickness of the floor both width and depth.**

ie: 4 mm Floor – 8 mm x 8 mm

6 mm Floor – 12 mm x 12 mm

9 mm Floor – 18 mm x 18 mm

2.4. Anchor Grooves / Termination Grooves should be included either side of all day joints in the substrate in preparation for a joint, should movement subsequently occur.

2.5. At soft joints subject to traffic and at channels, the Anchor Grooves should abut the joint to provide extra protection to the arris against impact and to prevent the ingress of liquids under the floor in the event of sealant failure.

NB: Refer to Master Builders Solutions detailed Sketches for Anchor Grooves and Termination Grooves.

3. PRIOR TO INSTALLATION:

3.1. Storage (Temperatures)

Materials should be stored under cover, out of direct sunlight. **Part 3** must be raised off the floor and kept dry. **Part 1** and **Part 2** and the **Sachet of Liquid Polykit** Pigment must be protected from temperature extremes.

Storage temperature: 15°C to 22°C.

The substrate concrete should be installed to the tolerances required of the finished floor. Any repairs to the substrate or correction of levels etc. Should be done in good time prior to the installation of the **UCRETE UD200.**

4. INSTALLATION OF THE UCRETE UD200:

4.1. **Site temperatures at the application area should be 5°C to 25°C. (Max)**

4.2. The mixed **UCRETE UD200** should be within **15°C to 20°C (Max)** range during installation. Once laid Ucrete will cure very effectively even at low temperatures.

4.3. Applications should not proceed if the temperature is expected to be below the dew point at any time during the operation.

4.4. **NB: End Use Service Temperatures: (a) 6mm (-25°C to + 80°C)**

(b) 9mm (-40°C to + 120°C)

(c) 12 mm (-40°C to + 130°C)

4.5. **Summary of Storage, Mixing and Application Temperatures.**

Item	Temperature
Material Storage Area	**15°C to 22°C**
Mixed Material	**15°C to 20°C**
Application area (Ambient)	**5°C to 25°C**
Substrate Surface	**12°C to 25°C**

NB: UCRETE should not be applied in direct sunlight or to very hot substrate surfaces.

5. Scratch Coat 1 mm

5.1. Option 1: UCRETE PRIMER FS - (Scratch Coat 1 mm)

(Fast Setting - Heavy Duty Fast Slurry Primer)

UCRETE PRIMER FS should not be applied on to:

- Damp substrates - Concrete and other cementitious substrates must be visibly dry.

- Weak substrates - the average pull-off strength shall be **> 1.5 N/mm^2.**
- Application to substrates of lower strength may affect the long-term performance of the applied flooring. This is particularly relevant in areas subject to heavy use be it thermal or mechanical.

5.1.1. MIXING:

5.1.1.1. Pour the contents of the **Part 1 (Red Cap – 2.83 kg)** and the **Part 2 (Blue Cap – 2.86 kg)** into a 20 L polyethylene mixing pail and mix using a suitable low speed hand held mixer with a **Collomix KR** type mixing head for 20 seconds.

5.1.1.2. Add the **Part 3** bag **(7 kg)** and continue mixing for a further 2 minutes or until the mix becomes homogeneous. **DO NOT overmix.**

5.1.1.3. The working life is approximately 10 minutes. Multiple units may be mixed, but **Do Not** mix more material than can be applied in 10 minutes.

5.1.2. APPLICATION OF UCRETE PRIMER FS:

The **UCRETE PRIMER FS** is applied by Squeegee or Steel Trowel at:

(a) 0.6 kg/m^2 (0.38 mm) – 1.6 kg/m^2 (1 mm)

NB: Maximum (3 kg/m^2 can be applied - 1.85 mm)

5.1.2.1. Above coverage rates will depend on substrate profile and does not include any wastage.

5.1.2.2. **Mixed material should be poured out immediately onto the floor otherwise it will Exotherm very quickly and set (in the bucket).**

5.1.2.3. Mixed material should not be left in the mixing bucket as it will react and give off considerable heat.

5.1.2.4. Anchor grooves 8 mm x 8 mm **(maximum)** can be filled out with the **UCRETE PRIMER FS.** Larger anchor grooves must be brushed out and filled with the subsequent **UCRETE System.**

5.1.2.5. The subsequent over-coating / application can be carried out when **the UCRETE PRIMER FS** is tack free typically as follows.

(1) 4 Hours at 10°C - 15°C
(2) 3 Hours at 20°C
(3) 2 Hours at 30°C

5.1.2.6. Ensure that **UCRETE PRIMER FS** has been correctly applied and cured. The use of **UCRETE PRIMER FS** is recommended to ensure the best surface finish and to aid application by reducing resin absorption into the concrete.

5.1.2.7. **At low temperatures and low humidity these times may be extended. The surface MUST be dry to the touch before overlaying – ideally the primer should be left overnight (12 hours).**

NB: Should the primer coat be left for more than 48 hours; mechanical surface preparation will be required to produce a suitable surface for the application of the body coat. This will necessitate repriming.

5.2. Option 2: UCRETE MF

The **Ucrete MF** scratch coat is applied by squeegee or steel trowel at 2 kg/m².

5.2.1. Above coverage rate will depend on substrate profile and does not include any wastage.

5.2.2. **Mixed material should be poured out immediately onto the floor otherwise it will Exotherm very quickly and set (in the bucket).**

5.2.3. Mixed material should not be left in the mixing bucket as it will react and give off considerable heat.

5.2.4. Anchor grooves 8 mm x 8 mm **(maximum)** can be filled out with the **Ucrete MF** scratch coat. Larger anchor grooves must be brushed out and filled with the subsequent **UCRETE** System.

5.2.5. The subsequent over-coating / application can be carried out when the **Ucrete MF** is tack free typically (18-24 hours).

The above timings are dependent upon both temperature and humidity. If the humidity is <50% a delay in setting / curing of the Ucrete MF can be expected and overlayment times would need to be extended.

NB: Should the scratch coat be left for more than 48 hours; mechanical surface preparation will be required to produce a suitable surface for the application of the body coat. This will necessitate re-priming.

6. APPLICATION OF UCRETE UD200 (6mm – 9mm – 12mm)

6.1. The length of the application bay should be such as to produce a strip of material along the whole length of the bay from a single or double mix to allow for efficient trowelling and maintaining a wet joint for finishing.

6.2. **Recommended Maximum length of any application bay is as follows:**

Thickness	Bay Size Width (Max)
6 mm	**4 m – 5 m long (1 mix)**
9 mm	**3 m – 4 m long (1 mix)**
12 mm	**2.5 m – 3.5 m long (1 mix)**

UCRETE UD200 consists of four components.

6.3. Mix the **UCRETE UD200** components **Part 1 (Yellow Cap) (2.37 kg)** and **Part 2 (Blue Cap) (2.86 kg)** and the **Sachet of Liquid Polykit Pigment (0.5 kg)** together for 1 minute with a slow speed drill and paddle (300 - 350 pm) to create a uniform dispersion.

6.4. The mixed material should then be transferred into a suitable mixing container and then gradually add the **Part 3 Aggregates (24.80 kg)** whilst mixing continues for **typically 3 - 4 minutes**. Only whole units are to be mixed. Nothing is to be added or left out.

6.5. The mixed material should be transferred into a clean bucket and taken to the application area.

6.6. Transport and discharge the mixed material on to the substrate as quickly as possible.

6.7. Spread the mixed **UCRETE UD200** evenly over the substrate and close using a steel trowel to the correct thickness using the appropriate WFT gauge at the following coverage rates.

(a) 6 mm : 12.5 kg/m^2

(b) 9 mm : 19 kg/m^2

(c) 12 mm : 25 kg/m^2

NB: Above coverage rates will depend on substrate profile and do not include any wastage.

6.8. Avoid over-trowelling as this may result in gloss variations and impaired slip resistance.

7. Optional (Spike Roller if required): The use of a spike roller very lightly over the surface will provide a more even finish and help to remove trowel marks.

7.1. The light spike rolling is best conducted immediately after application by the pin screed. The spike roller should only be rolled 100mm over the previous mix.

7.2. Care should be taken not to spike roll back into material that is partially cured in the previous mixes.

7.3. The spike roller should be lightly passed over the surface a maximum of twice as excessive spike rolling will have a detrimental effect on slip resistance and surface finish.

7.4. You cannot use the spike roller to flatten the surface of a poorly trowelled floor.

8. Optional (Short Pile roller if required): The use of a dry short pile roller very lightly over the surface will provide a more even finish.

8.1. The light rolling is best conducted immediately after trowelling or light spike rolling.

8.2. Care should be taken not to roll back into material that is partially cured. The roller should be passed over the surface a maximum of twice as excessive rolling will have a detrimental effect on slip resistance and surface finish. You cannot use the roller to flatten the surface of a poorly trowelled floor.

8.3. DO NOT apply when atmospheric condensation is occurring or likely to occur before full cure is attained, i.e., when the dew point is reached or when the ambient or substrate temperature is within 3°C of the dew point. Normally full cure is reached after 24 hours, but under very cold or very dry conditions this may be extended to 48 hours.

9. Expansion Joints:

9.1. Expansion Joints in the **UCRETE UD200** are best produced by saw cutting the material with a double bladed joint cutter after application and cure.

9.2. **MasterSeal CR 460** Joint Sealant to be applied as per **Master Builders Solutions Method Statement**.

10. POST INSTALLATION:

10.1. No Building Trades or traffic to be allowed on to the freshly laid **UCRETE UD200** for at least 16 hours at 15°C to 20°C, longer at lower temperatures.

10.2. It is normal for the installation of joints to take place and no other trades should have access until the sealant has cured sufficiently to resist damage.

10.3. If the floor is to be handed to the client in a pristine condition, then it must be protected from other trades. Full protection of the whole floor by temporary covers consisting of polyethylene sheeting overlaid with hardboard, or plywood depending on the trades and traffic to have access, with joints taped and fixed. Ensure the floor is completely tack free at the time of covering, typically after 24 hours at 15°C to 20°C.

NOTE:

The above guide provides a summary of the installation of a **UCRETE UD200** floor and should be read in conjunction with our technical data sheets.

The **UCRETE** Applicator is a specialist in the installation of **UCRETE** floors and is to install the floor in accordance with our current guidelines and best site practice.

UCRETE INDUSTRIAL FLOORING is only available from:
Master Builders Solutions Construction Chemicals LLC, P O Box 37127, Dubai, UAE

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