PRODUCT DATA SHEET

OXICRETE SL

Flow applied medium to heavy duty cementitious polyurethane floor topping

Description

Oxicrete SL is a medium-heavy duty, flow applied cementitious polyurethane floor topping system designed with the highest order of durability to resist abrasion, chemical attack and other physical aggression.

Typical application areas include food and beverage production, dairy processing, pharmaceutical and engineering process areas.

Advantages

- Ease of application
- Non Taint
- Easy to clean
- Seamless
- Tough, high resistance to damage

Appearance

Smooth matt finish

Thickness

3- 6mm

Chemical resistance

Oxicrete SL is resistant to a wide range of commonly used chemicals in the food, dairy and pharmaceutical industries, and engineering workshops. Good housekeeping practices should be employed. Please consult Al Majara for further advice.

Some staining or discoloration may occur with some chemicals, depending on dwell time, temperature, type of chemical and degree of housekeeping employed. This does not necessarily affect the product service integrity or durability.

Substrates

Concrete, polymer modified screeds, grano concrete.

Typical properties

BS8204-6(3mm) Type 5 floor (medium duty) BS8204-6(4-6mm) Type 7 floor (heavy duty)	
Compressive strength, BS6319-7, MPa	45
Tensile strength, BS6219-7 MPa	6.3
Flexural Strength, BS6219-3, MPa	12
Density (ASTM D792), kg/m^3	1945
Dynamic elastic modulus(ASTM C597), MPa	5900
Flexural Modulus (ASTM C597), MPa	3200
Taber abrasion resistance (ASTM D4060) H22 wheels, mg/1000 cycles CS17 wheels, mg/1000 cycles	 155 157
Water absorption %` (ASTM C413)	0.06
Thermal expansion coefficient (BS EN1770), /°C	6.1 x 10^{-5}
Impact resistance (ASTM D2794) Joules 6mm thickness	 15
Thermal conductivity (Thermtest TPS method), W/m.k	0.1132
Cleanability	Pass
Service temperature 3-4mm Service temperature 6mm	-5°C to + 60°C -10°C to +90°C
Ideal application temperature range, °C	15 – 30

Note: The typical physical properties given above are derived from testing in a controlled laboratory environment . Results derived from testing field – applied samples may vary, dependent on actual site conditions.

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Cure schedule at 30°C

Working life of full packs	
Oxicrete SL	15 – 20 minutes

Note: Usable working life of material following mixing and immediate spreading as per the application instructions

Finished Floor	Time
Cure time to light pedestrian traffic	12 hours
Cure time to light wheeled traffic	24 hours
Cure time to medium duty traffic	48 hours
Cure time to heavy duty traffic	7 days
Full chemical resistance	7 days

Note: The above cure times are approximate and given as a guide only. These times can vary due to prevailing site conditions and temperature.

Application instruction

Oxicrete SL should be installed by specialist applicators, who must follow the procedures laid down in guideline documents such as BS 8204 Part 6:2008 Code of practice – Synthetic Resin Floorings, and the Al Majara Method Statement - PU Cementitious Flooring.

Application conditions

Ideal ambient, material and substrate temperature range is 15 – 30°C to achieve best results. The product components should be stored in a cool area (or warm area in the case of low ambient temperature), using localised forced cooling or heating equipment as appropriate, in order to bring product temperature within the ideal range. The product can be applied outside this ideal temperature range (subject to a minimum of 10°C and maximum of 34°C) however the surface finish may be subject to spike roller marks. In these cases, physical properties and durability of the floor are not affected.

The substrate and applied floor must be kept at least 3ºC above the dew point to reduce the risk of condensation or blooming on the surface, from before priming to at least 48 hours after application of Oxicrete SL.

Surface preparation

Inadequate preparation may lead to loss of adhesion and failure. With flow-applied systems, there is a tendency for the finish to mirror imperfections in the substrate. Grinding or light vacuum-contained shot-blasting is therefore preferred over planning for these systems. Percussive scabbling or acid etching is not recommended.

Anchorage grooves must be cut to a minimum depth and width of 2x the flooring thickness to be laid: at the edges or perimeter; day joints; up-stands; drains; doorways and at regular points across the floor, and all debris removed.

New concrete floors

The base should be a minimum of Grade RC30 of BS 8500-2:2002 and should not contain a water repellent admixture. The surface strength when assessed using a rebound hammer should be above 25 or the surface tensile strength should exceed 1.5 MPa.

The laitance and any surface sealer or curing membrane should be removed by mechanical means such as shot-blasting or grinding to expose the coarse aggregate. After surface preparation, all loose debris and dirt should be removed by vacuum equipment.

For concrete bases in contact with the ground, a damp-proof membrane should have been incorporated into the slab design, in accordance with the requirements of CP102 (Code of practice for the Protection of Buildings Against Water from The Ground).

Old concrete floors

All laitance and surface contamination should be removed by mechanical means such as shot blasting or grinding to expose the coarse aggregate. After surface preparation, all loose debris and dirt should be removed by vacuum. Heavy oil or grease deposits should be removed either mechanically, or by steam cleaning, or by biological treatment, then by high

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pressure water blasting followed by the application of a penetrating primer. Where oil or grease contamination has been severe or of long duration, these methods may prove unsatisfactory and in these cases removal of the affected base is necessary.
In existing buildings without a functioning damp-proof membrane, the application of a surface-applied membrane should be considered. Hydrostatic pressure may, under certain circumstances, cause adhesive failure between the flooring and the substrate. Where this is likely to occur, such as in areas where the ground water table is higher than the substrate, and where external tanking has not been applied, pressure relief must be provided, e.g. by direct drainage.
A close visual examination should be made to verify cleanliness and soundness. Any weak or suspect areas should be repaired.

Priming/scratch coating

Oxicrete SL should be applied as a primer/scratch coat at a coverage rate of up to a nominal 1 mm thickness; actual coverage rate will depend on concrete surface texture and porosity. This scratch coat is designed to prime and seal the floor. Mix (see Application below) and spread evenly by trowel. The scratch coat should be allowed to cure for 12 - 48 hours at 20ºC before applying the Oxicrete SL. If the scratch coat has been allowed to cure for >48 hours then the coat must be thoroughly abraded and a fresh layer of scratch coat applied.
If severe pin-holing is evident in the cured scratch coat, indicating that air is rising from the substrate, then remedial action should be taken. Contact your local Al Majara office for advice. Failure to do so may result in increased risk of pin- holing of the surface topping.

Application of Oxicrete SL Topping

Oxicrete SL is a three-component product. A forced-action rotary paddle mixer is recommended for mixing the product. Shake the base component for 30 seconds prior to use. Drain the contents of the liquid base and liquid hardener components into a large plastic container and mix briefly. Load the coloured filler component whist mixing, and continue mixing for at least 1 minute, until a lump-free mix is obtained, including a scrape down if necessary.
Immediately discharge and spread the mix over the application area, using a notched trowel to achieve the required coverage rate. De-aerate using a spiked roller. Spike rolling should be carried out within 10 minutes of application in order to avoid interfering with flow and surface finish. Ensure that anchorage grooves are fully wetted out with material. Do not return to spike roll older applied areas as the product is fast-setting and this action will leave spoiling marks on the applied floor.
The finished floor should be protected from other trades using Kraft paper or similar breathable material. Polythene should not be used. Protect the installed floor from damp, condensation and water for at least 4 days.

Supply

Oxicrete SL	20.25 kg packs
Comprises Oxicrete SL Part A Oxicrete Part B Oxicrete Filler	 3Kg 3Kg 14.25 Kg

Cleaning

Regular cleaning is essential to maintain and enhance the life expectancy, slip resistance and appearance of the floor. Al Majara Oxicrete SL can be easily cleaned using industry standard cleaning chemicals and techniques. Consult your cleaning chemical and equipment supplier for more information.

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Storage, mixing & application

Oxicrete SL has a shelf life of 12 if stored off the ground in dry store at 10 -30ºC. Storage outside this temperature range or repeated fluctuations in storage temperature can reduce the storage life. Protect from frost.

Fire

Oxicrete SL is nonflammable.

Health and safety

Oxicrete SL should not come into contact with the skin and eyes or be swallowed. Ensure adequate ventilation and avoid inhalation of vapours. Wear suitable protective clothing, gloves and eye protection. If working in confined areas, suitable respiratory protective equipment must be used. The use of barrier creams provides additional skin protection. In case of contact with skin, rinse with plenty of clean water, then cleanse with soap and water. Do not use solvent.

In case of contact with eyes, rinse immediately with plenty of clean water and seek medical advice. If swallowed seek medical attention immediately - do not induce vomiting. Refer to Product Safety Data Sheet for further information.

Information

Al Majara Polychem Ind. LLC products are guaranteed against defective materials and are sold subject to standard terms and condition of sale, copies of which are available on request which are reasonable care it's taken compiling this technical data sheet, all recommendations regarding the use of product are made without guarantee since the conditions used are beyond the company' direct control. It is the customer responsibility to satisfy themselves that each product is fit for the PU Plus purpose for which they indent to use it.

Quality Matter

All products originating from Al Majara Polychem Ind. LLC are manufactured under a management system independently certified to conform to the requirements of the quality, environmental and occupational health & safety standards ISO 9000, ISO 14001 and OHSAS 18001.

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