

PRODUCT DATA SHEET

UCRETE® WR

Polyurethane concrete coating for vertical surfaces

Uses

UCRETE WR is used to form coves and skirtings and to protect plinths, drains, tank bases, sumps, effluent storage pits and other vertical surfaces.

Benefits

- ◇ Expert installation
 - installed only by fully-trained applicators
- ◇ Fast application
 - can be laid on 7 day old concrete/3 day old polymer screed
 - short curing times
- ◇ Hygienic and safe
 - non-tainting
 - monolithic-minimises joints
 - easy to clean
 - non-dusting
- ◇ Long-life
 - resistant to almost all chemicals
 - excellent wear and impact resistance
 - resistant to temperatures -40°C to +120°C
- ◇ Proven track record
 - 25-years of project references

Description

UCRETE WR is a three-part polyurethane concrete. It is designed for application by trowel at thicknesses of 3mm and above. UCRETE WR should always be applied onto PRIMER TC, a solvent-free, two component tack primer.

Product data

Typical physical properties ^(a)	
Density (BS 6319:Part 5), Kg/m^3	2100
Compressive strength (BS 6319:Part 2), N/mm^2	45
Tensile strength (ISO R527), N/mm^2	7
Flexural strength (ISO 178), N/mm^2	10
Dynamic elastic modulus (ASTM C597-83), N/mm^2	18000
Adhesive strength to concrete (BS6319:Part 4), N/mm^2	concrete failure
Coefficient of thermal expansion (ASTM C531:Part 4.05), $^{\circ}C^{-1}$	2.4×10^{-5}
Thermal conductivity (BS 874), $W/m. ^{\circ}C$	1.1
Water absorption (CP.BM 2/67/2) ml	0
Surface spread of flame (BS 476:Part 7)	Class 2
Surface resistivity (BS 2050), $ohms$	3×10^8

^(a) samples cured for 28 days at 20°C

Chemical Resistance

UCRETE WR will resist spillages of:

- dilute and concentrated acids: hydrochloric, nitric, phosphoric and sulphuric
- dilute and concentrated alkalis, including sodium hydroxide to 50% concentration
- most dilute and concentrated organic acids
- fats, oils and sugars
- mineral oils, kerosene, gasoline and brake fluids
- most organic solvents

In many cases resistance is maintained to elevated temperatures even under thermal shock conditions. Temperature resistance is, however, dependent on thickness.

At 3mm a maximum service temperature of 60°C should be observed. This rises to 120°C at a thickness of 9mm.

Detailed information on chemical resistance is available from HSC.

Colours

UCRETE WR is available in six standard colours:

Cream Green Grey
Orange Red Yellow

Other colours may be available to meet special requirements but will be subject to minimum order quantities and may require extended lead times.

Coverage

Coverage is influenced by substrate roughness, porosity and temperature.

Packaging

PRIMER TC is supplied as three factory-batched components. UCRETE WR is supplied as three factory-batched components.

Storage

All parts of PRIMER TC and UCRETE WR should be stored under cover and free of the ground. Storage conditions should be dry, above 5°C and below 30°C. Part 1 of UCRETE WR must not be allowed to freeze.

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Application

Substrate quality

Substrates will normally be concrete or polymer modified screeds. Other substrates may be suitable; consult your specialist applicator or local HSC office for advice.

All substrates must be clean and free from dust and loose particles. Concrete and other cementitious substrates must be visibly dry and have a minimum tensile (pull-off) strength of 1.5 N/mm². UCRETE WR may be applied to substrates of lower strength but the long-term performance of the floor may be affected. All traces of contaminants, such as oils, fats, greases, paint residues, chemicals, algae and laitance, should be removed.

Substrate preparation

As with all surface coatings, proper surface preparation is vital to ensure the successful application and performance of UCRETE WR.

For practical reasons, coves are generally prepared by wire-brushing or grinding, whilst vertical surfaces may require abrasive blasting followed by vacuum cleaning to remove loose particles.

Mixing and application

Full details of correct mixing and application procedures for both PRIMER TC and UCRETE WR are given in the UCRETE Application Manual which is available to licensed and specialist applicators only.

Curing

The following table should be used as a guide at 15 to 25°C.

Foot traffic, hours	8
Light traffic, hours	24
Full traffic and chemical resistance, hours	48

Clean up and spillages

Cleaning of plant and equipment should be undertaken well away from the application area. Xylene may be used to clean equipment, tools and spillages. In the case of spillages, excess material must first be absorbed onto sawdust or other disposable absorbent medium. Use correct handling procedures with solvents and take care to avoid any accidental spillage or splashes onto coated surfaces.

Part 2 containers may contain small amounts of unreacted diisocyanates (MDI). Therefore they must be decontaminated with a 5% solution of soda ash (sodium carbonate or washing soda) prior to disposal as building waste.

Cleaning and Maintenance

Regular cleaning and maintenance will prolong the life of all resin floors, enhance the appearance and reduce the tendency to retain dirt.

Specialised floor cleaning equipment and chemicals are ideally available and the suppliers are able to offer advice on appropriate cleaning regimes. Consult them or your local HSC office for details.

Health and Safety

Appropriate health and safety advice can be found in the Material Safety Data Sheets.

Users are advised to wear gloves and eye protection when mixing and applying PRIMER TC and UCRETE WR.

Important

Whilst all reasonable care is taken in compiling technical data on the company's products, all recommendations or suggestions regarding the use of such products are made without guarantee since the conditions of use are beyond the control of the company. It is the customer's responsibility to satisfy himself that each product is fit for the purpose for which he intends to use it and that the actual conditions of use are suitable.

HSC UK Limited
19 Broad Ground Road
Lakeside
REDDITCH
Worcestershire
B98 8YP

Tel: +44 (0) 1527 505100
Fax: +44 (0) 1527 510299