



Ucrete RG

Heavy Duty Polyurethane Render

MATERIAL DESCRIPTION

Ucrete RG is a unique HD Polyurethane thixotropic resin mortar with exceptional resistance to aggressive chemicals, heavy impact and temperatures up to 120°C.

Ucrete RG provides a robust render for vertical applications in wet and dry process environments. It is dense and impervious providing the ideal finish for applications in the food and beverage, pharmaceutical and chemical industries.

Ucrete Industrial Flooring has been widely used throughout industry for more than 40 years, many of the older floors are still in service. A detailed project reference list is available upon request.

FIELDS OF APPLICATION

Ucrete RG is used to protect vertical surfaces including:

- Plinths
- Drains
- Secondary containment bunds
- Tank bases
- Sumps
- Effluent storage pits
- Coving and skirting

FEATURES AND BENEFITS

- Expert installation by fully trained licensed applicators.
- Suitable for application on 7 day old concrete and 3 day old polymer screeds.
- Achieves full cure in only 48 hours (subject to temperature).
- Hygienic and non-tainting.
- Solvent free.
- Steam cleanable @ 9mm and above.
- Rapid installation, up to 9mm in a single application.

AIR QUALITY

Ucrete has been awarded the Indoor Air Comfort Gold Label following extensive VOC emission chamber testing and auditing of quality management and production control procedures.

This demonstrates that Ucrete is an extremely clean product without any volatile compounds that might taint foodstuff or affect the well-being of personnel.

All Ucrete grades give very low emissions and conform to all the emissions requirements for indoor flooring systems in Europe including AgBB in Germany, Afsset in France, where they are rated A+ for VOC emissions (the cleanest rating), and M1 in Finland. For further information please contact your local Master Builders Solutions representative.

NON-TAINTING

Ucrete RG is solvent free and non-tainting from the end of mixing, as tested by the Campden Technology Ltd.

TEMPERATURE RESISTANCE

The **Ucrete RG** resins do not start to soften until temperatures above 130°C are exceeded. Ucrete Flooring Specifications are available that are fully serviceable up to 130°C and resistant to occasional spillage up to 150°C.

Correctly installed, **Ucrete RG** can withstand regular and routine discharges of boiling water, hot oils and fats.

TYPICAL PHYSICAL PROPERTIES*

Density	2090kg/m ³
Compressive strength (EN13892-2)	47-52 MPa
Tensile strength (BS6319 Part 7)	7 MPa
Flexural strength (EN13892-2)	15 MPa
Adhesive strength to concrete (EN13892-8)	Concrete failure
Fire Testing (EN13501: Part 1)	B _{FL} – S ₁

Note: Samples cured for 28 days at 20°C

CHEMICAL RESISTANCE

Ucrete RG offers exceptional resistance to a wide range of chemical aggressors. For example, it is resistant to the following commonly encountered chemicals:

- 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.
- cleaning chemicals and sanitizing agents.
- mineral oils, kerosene, gasoline and brake fluids
- most organic solvents.

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Extensive chemical resistance tables are available in the separate data sheet 'A guide to the chemical resistance of Ucrete Flooring'.

Note: some staining or discolouration may occur with some chemicals depending upon the nature of the spillage and the standards of housekeeping employed.

PACKAGING

Ucrete RG is supplied as an 11.8kg multi component pack (including colour pack):

Part 1 = 0.71kg

Part 2 = 1.09kg

Aggregate = 9.5kg

Pigment pack = 0.5kg

IMPACT RESISTANCE

With high mechanical strengths and a low elastic modulus, **Ucrete RG** is very resilient and able to withstand severe impact loads. While no material is indestructible and surface chipping may occur, brittle modes of failure resulting in cracking and disbondment are unknown with Ucrete floors.

SUBSTRATE MOISTURE TOLERANCE

Ucrete Industrial Flooring is extremely tolerant to residual substrate moisture and can be installed directly onto 7 day old concrete, or onto old good quality concretes with high moisture contents without the use of special primers, provided there is a functioning DPM within the structure.

This enables rapid construction programmes to be maintained and facilitates refurbishment work in wet process areas.

Epoxy surface DPMs should not be used as they soften under high temperature conditions and will lead to floor failure.

PERMEABILITY

Ucrete RG exhibits zero absorption when tested to CP.BM2/67/2.

CLEANING AND HYGIENE

Ucrete flooring systems are accredited for use in facilities operating HACCP based food safety systems.

Regular cleaning and maintenance will enhance the life of any finish, retain the appearance and reduce the tendency to retain dirt.

COLOURS

Ucrete RG is available in eight standard colours:

Red	Grey	Yellow
Blue	Green/Brown	Cream
Orange	Green	

Ucrete floor systems have been formulated to provide the very highest chemical and heat resistance. As a direct result some yellowing of the installed floor will occur in areas of direct UV exposure. This is most apparent in lighter colours.

SPECIFICATION

The coving/lining/finish* shall be **Ucrete RG** from Master Builders Solutions, B98 8YP installed at 4/6/9*mm in accordance with the manufacturers' instructions. *(select as required)

*A 4mm **Ucrete RG** lining is fully resistant to liquid spillage and discharge up to 70°C.

*A 6mm **Ucrete RG** lining is fully resistant to liquid spillage and discharge up to 80°C and can be lightly steam cleaned.

* A 9mm **Ucrete RG** lining is fully resistant to high temperature spillage and discharge up to 120°C and is fully steam cleanable.

Where long term contact with chemicals will occur, when lining drains and sumps, for example, a minimum thickness of 6mm should be used. In extreme thermal shock environments, a well-designed substrate of good quality concrete is essential.

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SUBSTRATE QUALITY

Concrete substrates should be visibly dry and have a minimum tensile strength of 1.5 MPa.

Refer to the guide 'The Design & Preparation of Substrates for Ucrete Industrial Flooring'.

All joints in the substrate concrete subject to movement should be reflected through the Ucrete floor and sealed with a suitable sealant.

COVERAGE

4mm: 8.5 kg/m²

6mm: 12.5 kg/m²

9mm: 19.0 kg/m²

Note: Above coverage rates do not include wastage.

CURING

Normally **Ucrete RG** can be put into service within 24 hours even at 8°C. Full chemical cure is achieved at 48 hours.

STORAGE

In covered warehouse conditions, above 5°C and below 30°C and out of direct sunlight. Materials must be raised off the floor and kept dry. Liquid components must be protected from frost.

Shelf life is 9 months from date of manufacture when stored in undamaged, unopened packaging. Failure to comply with the recommended storage conditions may result in premature deterioration of the product or packaging. For specific storage advice consult Master Builders Solutions' Technical Services Department.

DISPOSAL

Part 2 containers should be decontaminated with 5% sodium carbonate (washing soda) solution after use and

disposed of as building waste in accordance with local regulations.

WARNING AND PRECAUTIONS

In its cured state Ucrete is physiologically non-hazardous.

For normal flooring applications Ucrete does not require the use of respiratory protective equipment during installation.

Operatives should consult the CoSHH risk assessment and their work instructions.

NOTE

Technical support, where provided, does not constitute supervisory responsibility. For additional information contact your local MB Construction Chemicals Solutions South Africa (Pty) Ltd representative. MB Construction Chemicals Solutions South Africa (Pty) Ltd shall not be liable for technical advice provided.

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* Properties listed are based on laboratory controlled tests.

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