

Ucrete[®] HPQ

Heavy duty polyurethane coloured quartz screed

DESCRIPTION

Ucrete HPQ is unique HD polyurethane resin technology with an attractive coloured quartz screed finish.

Ucrete HPQ provides a robust 4-6mm thick coloured quartz floor finish suitable for applications in wet and dry process environments.

It is dense and impervious, providing the ideal floor finish for applications in pharmaceutical production facilities, clean room areas, amenity rooms, retail, commercial and industry environments and wherever an attractive floor is required.

The high-quality epoxy encapsulation resin finish provides for the highest aesthetic standards and ease of cleaning.

For areas where higher chemical and temperature resistance is required, the light stable high performance **Ucrete TCPU CLEAR** is available.

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.

The epoxy encapsulation resin is not covered by this certification. For further information please contact your local Master Builders Solutions representative.

PERFORMANCE DATA

TEMPERATURE RESISTANCE

A **Ucrete HPQ** floor with **Ucrete TCPU CLEAR** will withstand liquid spillages and discharge up to 70°C.

Ucrete HPQ floors with the epoxy encapsulation resin is fully resistant to liquid spillage and discharge up to 60°C.

NON-TAINTING

The **Ucrete HPQ** systems are non-solvented and non-tainting.

TYPICAL PROPERTIES*

Density	2000-2090 kg/m ³
Compressive strength (EN13892-2)	48 - 54 MPa
Tensile strength (BS6319 Part 7)	5-7 MPa
Flexural strength (EN13892-2)	12 - 14 MPa
Compressive modulus (BS 6319:Part 6)	3250 - 5000 MPa
Adhesive strength to concrete (EN13892-8)	concrete failure
Coefficient of thermal expansion (ASTM C531:Part 4.05)	2.6 x 10 ⁻⁵ °C ⁻¹
Fire Testing (EN13501: Part 1)	B _{FL} – S ₁

Note: Samples cured for 28 days at 20°C

Ucrete[®] HPQ

SLIP RESISTANCE

The **Ucrete HPQ** surface profiles have coefficients of friction as determined to EN13038 Part 4 using the 4S rubber on the wet floor as follows:

Ucrete HPQ_{pu} 36 - 45

Ucrete HPQ_{ep} 36 - 40

The **Ucrete HPQ** surface profiles conform to DIN51130 as follows:

Ucrete HPQ_{pu} R11 -

Heavy hard wheeled traffic will reduce the slip resistance of **Ucrete HPQ** floors.

Optimum slip resistance can only be maintained with regular cleaning.

CHEMICAL RESISTANCE

Ucrete HPQ will resist spillages of:

- dilute mineral and organic acids
- salts and salt solutions
- dilute alkalis
- fats, oils and sugars
- mineral oils

For maximum chemical and solvent resistance use **Ucrete TCPU**. The separate data sheet 'A guide to the chemical resistance of Ucrete Flooring' refers.

For detailed information, please contact your local Master Builders Solutions Construction Chemicals office for guidance.

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

IMPACT RESISTANCE

With high mechanical strengths and a low elastic modulus, **Ucrete HPQ** 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 HPQ exhibits zero absorption when tested to CP.BM2/67/2.

SPECIFICATION

The floor finish shall be **Ucrete HPQ/HPQAS***, from Master Builders Solutions UK Ltd of 19 Broad Ground Road, Redditch, Worcestershire, B98 8YP, installed at 4 or 6*mm in accordance with the manufacturer's instructions and finished with 1 or 2* coats **Ucrete TCPU CLEAR** /a clear epoxy encapsulation resin*
*(select as required)

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.

APPLICATION CONDITIONS

For best results materials, substrate and air temperature should be in the range 15-25°C. Whilst **Ucrete HPQ** will cure out effectively over a wide range of temperatures the optimum appearance and profiles are most readily achieved under good site conditions.

Low temperatures will retard the setting and can impair the visual appearance of the floor.

High temperatures will shorten the open time and can impair the appearance of the floor.

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Condensation and low temperatures can cause a white bloom on the surface.

CURING

Normally **Ucrete HPQ** floors with **Ucrete TCPU** can be put into service within 24 hours even at 8°C. Floors with an epoxy encapsulation resin may require longer, especially at lower temperatures.

CLEANING AND HYGIENE

Regular cleaning and maintenance will enhance the life and appearance of any floor.

Ucrete HPQ is cleaned using industry standard cleaning chemicals and equipment. The use of a food industry standard scrubber drier machine is recommended.

Detailed cleaning guidelines are available from your local Master Builders Solutions Construction Chemicals office.

COVERAGES

Please refer to the method statement or contact Master Builders Solutions Technical Services department.

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.

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.

HEALTH AND SAFETY

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.

HANDLING AND TRANSPORT

Usual preventive measures for the handling of chemical products should be observed when using this product, for example do not eat, smoke or drink while working and wash hands when taking a break or when the job is completed.

Specific safety information referring the handling and transport of this product can be found in the Material Safety Data Sheet. For full information on Health and Safety matters regarding this product the relevant Health and Safety Data Sheet should be consulted.

Disposal of product and its container should be carried out according to the local legislation in force. Responsibility for this lies with the final owner of the product.

* Properties listed are based on laboratory controlled tests.

® = Registered trademark of the MBCC Group in many countries.

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Master Builders Solutions UK Ltd 19 Broad Ground Road Lakeside, Redditch Great Britain B98 8YP	
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01040059, 01040060	
Synthetic resin screed material	
Reaction to fire:	B _{FL} – S ₁
Release of corrosive substances:	NPD
Water permeability:	NPD
Mechanical resistance:	NPD
Wear resistance:	AR0,5
Bond strength:	B>2,0
Impact resistance:	IR>4
Sound insulation:	NPD
Sound absorption:	NPD
Thermal resistance:	NPD
Chemical resistance:	NPD
Electrical resistance:	NPD



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STATEMENT OF RESPONSIBILITY

The technical information and application advice given in this Master Builders Solutions publication are based on the present state of our best scientific and practical knowledge. As the information herein is of a general nature, no assumption can be made as to a product's suitability for a particular use or application and no warranty as to its accuracy, reliability or completeness either expressed or implied is given other than those required by law. The user is responsible for checking the suitability of products for their intended use.

NOTE

Field service where provided does not constitute supervisory responsibility. Suggestions made by Master Builders Solutions either orally or in writing may be followed, modified or rejected by the owner, engineer or contractor since they, and not Master Builders Solutions, are responsible for carrying out procedures appropriate to a specific application.

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