



Ucrete Industrial Flooring

The World's Toughest Floor
Since 1969

50
YEARS OF
Ucrete

50 Years
of Excellence
in Flooring



Ucrete – the world's toughest floor since 1969

Performing at the highest level for more than 50 years. Ever since, innovative, sustainable and practical solutions have been the key drivers in the development of the Ucrete product range. If you are looking for the right flooring for your project, Ucrete floors give you the reassurance of proven performance and a reputation acquired over decades of use in aggressive process environments throughout the food and beverage, pharmaceutical, chemical and engineering industries.



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Our reference in Rüsselsheim (Germany):
Health and Care Center



The key benefits at a glance

Ucrete industrial flooring sets the benchmark for attractive heavy-duty flooring. It is quick and practical to install, meeting all the needs of modern processing industry for safety and performance. It is a unique suite of products that enjoys an unequalled reputation for performance, built up over five decades of use throughout the food, beverage, pharmaceutical, chemical and engineering industries.

Ucrete's longevity minimizes downtime and ensures a safe, hygienic and efficient working environment, making it the most cost-effective flooring solution.

Long-term performance

There are many 20 – 30 year-old Ucrete floors in aggressive environments still in service.

Aesthetics

Colour-stable and stain-resistant systems are available for those applications where appearance, as well as performance, is required.

Fast application and curing

Even at low temperatures. Specifications are available that are fully serviceable after only 5 hours at 10 °C, making it ideally suited for refurbishment work.

Moisture tolerant

Can be installed onto 7-day-old concrete without the need for special primers, helping to stay on schedule on fast-track projects.

Thermal-shock resistance

Withstands spillages up to 150 °C depending upon specification.

Chemical resistance

From strong acids to alkalis, fats, oils and solvents which can rapidly degrade other types of resin flooring.

Clean and safe

For your workers, your products and the environment. Certified by the Eurofins Indoor Air Comfort Gold standard for low emissions.

Hygiene

Cleanable to the same standard as stainless steel and does not support biological growth, so helping to maintain hygiene standards.

Non-tainting

Even during application in food-handling areas.



Our reference in České Budejovice (Czech Republic):
Budweiser Budvar Brewery



Getting it right

When factory owners, architects and engineers who specified and installed Ucrete in the 1970s and 1980s find that their floor is still in service well into the 21st century, you can understand why they want to specify Ucrete again. But you don't need to have used Ucrete in the past to be convinced of its performance. You can trust the Ucrete reputation, built up over fifty years and many millions of square meters of floors for companies large and small in more than one hundred countries around the world.

A simple choice

If you want a floor

- ...that stands up to aggressive production environments
- ...that does not support bacteria or mold growth
- ...that has bacterial cleanability comparable to stainless steel
- ...that can be put back into service after just five hours at 10 °C
- ...that resists a broad spectrum of aggressive chemicals
- ...that provides good looking floors with stain-resistant and colour-stable options
- ...that withstands regular and routine discharges of boiling water
- ...that can be installed rapidly on to 7-day-old concrete and other high moisture content substrates
- ...that minimizes your downtime
- ...that reduces your maintenance costs
- ...that prevents accidents, with slip-resistant profiles for wet and greasy environments
- ...that is shown to provide long-lasting solutions over 10, 20, 30 or more years
- ...that helps protect the environment
- ...that has over 50 years' proven track record

Then the choice is simple, only a Ucrete floor will do.

We can help

The expertise we have gained over the last 50 years working with Ucrete performance flooring throughout the processing industries can help you find the most cost-effective, elegant and long-lasting solutions.

Discussing your floor with your local Ucrete expert from Master Builders Solutions will help define the right product for you, with the right appearance and slip resistance, the

right thickness to meet your temperature requirements and the robustness to provide a long-lived solution.

We can also provide guidance on the design and detailing of the substrate to help ensure you get the best floor possible.

For further information, please contact your local Master Builders Solutions office.



Thinking about your requirements

For more than 50 years, we have invested our technical expertise and market understanding to provide a range of high-performance sustainable floors with different aesthetic and technical profiles to meet the needs of our customers.

The purpose of this brochure is to help you choose the best floor to meet your requirements, now and for years to come.



Our reference in Homburg (Germany):
Karlsberg Brewery

Smooth floors

- Ucrete MF 4–6 mm
- Ucrete MF40AS 4–6 mm, antistatic
- Ucrete MFAS-C 4–6 mm, conductive
- Ucrete TZ 9–12 mm terrazzo
- Ucrete TZAS 9–12 mm antistatic terrazzo

Light textured floors

- Ucrete DP10 4–9 mm
- Ucrete DP10AS 6 mm, antistatic
- Ucrete HF60RT 6 mm
- Ucrete HF100RT 9 mm
- Ucrete HPQ 4–6 mm coloured quartz
- Ucrete HPQAS 6 mm antistatic coloured quartz
- Ucrete IF 9 mm iron armored
- Ucrete MT 4–6 mm
- Ucrete UD200 6–12 mm

Medium textured floor

- Ucrete DP20 4–9 mm
- Ucrete DP20AS 6 mm, antistatic
- Ucrete UD200SR 6–12 mm
- Ucrete UD100AS 9 mm, antistatic

Highly textured floor

- Ucrete DP30 4–9 mm

Vertical surfaces

- Ucrete RG 4–9 mm coving and render
- Ucrete TZ COVE 6–9 mm terrazzo coving

Colour stable

- Ucrete CS10 4–9 mm
- Ucrete CS10AS 6 mm, antistatic
- Ucrete CS20 4–9 mm
- Ucrete CS20AS 6 mm, antistatic

Aesthetics

Ucrete floors are functional floors, but that does not mean they have to be unsightly. System specifications are available that are colour stable, stain resistant and easily cleaned while having the chemical, thermal and mechanical resistance that have built the reputation of Ucrete flooring across the globe.

Slip resistance

The most appropriate surface texture for any particular application will depend on the nature of any spillage to be encountered, the type of work undertaken in the area and the standards of housekeeping and cleaning to be maintained. Slip resistance is discussed on page 10.

Hygiene

Ucrete floors do not support biological growth and are as cleanable as stainless steel. See page 16 for more details.

Temperature resistance

The in-service temperature requirements help determine the required floor thickness and may limit the number of appropriate finishes available. See page 8 for more details.

Chemical resistance

All Ucrete floors have the superior chemical resistance characteristics shown in the tables on page 12.

Antistatic

To protect sensitive electronic devices or minimize explosion risks, a range of antistatic floors is available as detailed on page 14.

Mechanical resistance

In areas where heavy mechanical impact and intense hard-wheeled traffic is expected, thicker systems with larger aggregate should be used.

Non-tainting

Ucrete flooring systems are non-tainting even during application, making them the safe choice for weekend and maintenance work.

Rapid installation

We appreciate that it is not always easy to close production lines, so many of our systems can be installed in weekend or even overnight application windows. By minimizing downtime, we cut the cost of upgrading to a Ucrete floor. Ucrete UD200, for example, can be put back into service after only 5 hours at 10 °C.

A bespoke solution

The wide range of Ucrete flooring systems allows you to tailor your floor to meet all of your requirements. We will work with you to help you select the best and most cost-effective flooring solution for your facility. Please contact your local Master Builders Solutions expert for guidance.



Thermal shock resistance



Our reference in Bruges (Belgium):
Marine Harvest

While most resin flooring systems soften at temperatures of 60 °C or less, the unique Ucrete resin systems are unaffected until temperatures of 130 °C are exceeded.

This high temperature resistance, coupled with resilience, enables Ucrete floors to withstand high-temperature spillages and extreme thermal-shock conditions.

Ucrete floors are available in four separate thickness specifications, ranging from 4 mm to 12 mm, suitable for the most extreme environments with occasional spillages of up to 150 °C (see panel below).

Always reliable

The increasing thickness protects the bond line with the substrate from the enormous stresses of an extreme thermal shock event.

When the volume of liquid spilled is small, however, no damage is likely. So, for example, a spilt cup of coffee at 90°C will not damage a 4 mm floor, but a 1000-liter discharge at 90°C probably would.

A 9 mm thick Ucrete floor is able to withstand routine and regular discharge of boiling water.

In extreme thermal shock environments, a good quality, well-designed substrate is required with allowance for the large thermal movements of the substrate that are expected.

Cryogenic shock

Cryogenic spillages present a particularly severe challenge to floors. The 9 mm Ucrete specifications will withstand occasional cryogenic spillages, for example up to 5 liters of liquid nitrogen, without damage.

Thickness specifications

4 mm

- Fully resistant to +70 °C
- Freezer temperatures to –15 °C
- Ucrete CS, DP, HPQ, MF, MT, RG

6 mm

- Fully resistant to +80 °C
- Light steam clean
- Freezer temperatures to –25 °C
- Ucrete CS,DP, HF60RT, MT, RG,UD200, UD200SR

9 mm

- Fully resistant to +120 °C
- Full steam clean
- Freezer temperatures to –40 °C
- Ucrete CS, DP, HF100RT, IF, RG, TZ, UD200, UD200SR

12 mm

- Fully resistant to +130 °C
- Occasional spillage to 150 °C
- Full steam clean
- Freezer temperatures to –40 °C
- Ucrete TZ, UD200, UD200SR

More than 50 years of proven performance

There is no simple test to prove that a flooring system will withstand repeated thermal shock over many years in a factory environment. The performance we quote is based upon our experience with Ucrete flooring in aggressive process environments throughout the world for more than 50 years.

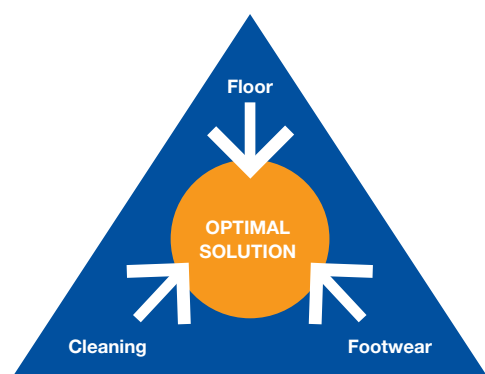


Avoiding slip accidents

In wet and greasy process environments, the correct surface profile is essential to provide a safe and efficient working environment. Ucrete flooring offers a range of surface profiles, from smooth and terrazzo systems to highly textured defined profile floors.

Floors to falls

Often, floors will be laid to falls to allow water and liquid spillages to flow to drain. Free-draining floors require steep falls needing a good profile to be safe. Where personnel are required to push bins and racks over a floor with steep or complex falls, the need to try and prevent the load rolling downhill increases the likelihood of strain injuries as well as slips, trips and falls. In general, flatter floors are safer.



Slip Resistance is a Balance

Slips, trips and falls.

A holistic approach is required to minimize slips, trips and falls. Engineering solutions to avoid floor contamination, or a change of working practices and procedures, can help as much as cleaning and footwear. A compromise between cleaning and slip resistance is required; smoother floors may call for more frequent cleaning, while rougher floors need more aggressive cleaning.

Hygiene

There is no need to compromise on aesthetics or hygiene when looking for slip-resistant flooring, Ucrete DP systems offer R12 and R13 profiled floors that can be cleaned to the same standard as stainless steel, with Ucrete CS colour-stable options available (see page 29).

Planned cleaning

A formal cleaning plan should be in place detailing the frequency and type of cleaning required in each location.

Floor cleaning should be coordinated with that of plant and equipment, so that residues from plant cleaning are removed promptly and not left to evaporate to dryness on the floor.

Bespoke solutions

Not every location will need the same degree of slip resistance. This is why we offer Ucrete with a range of surface profiles to enable the floor to be tailored to meet your needs. For specific advice as to the most appropriate grade of Ucrete for your floors, please contact your local Master Builders Solutions expert for guidance.

Conformity to DIN 51130

■ Ucrete MF	R10	■ Ucrete UD200	R11
■ Ucrete TZ	nd	■ Ucrete IF	R11
■ Ucrete HPQ	R11	■ Ucrete DP10	R11
■ Ucrete MT	R10/R11*	■ Ucrete DP20	R12/R13*
■ Ucrete HF60RT	R10/R11*	■ Ucrete UD200SR	R13
■ Ucrete HF100RT	R10/R11*	■ Ucrete DP30	R13

* depending upon specification

EN 13036-4 Pendulum test **

■ Ucrete MF	35	■ Ucrete UD200	40 – 45
■ Ucrete TZ	35 – 40	■ Ucrete IF	40 – 45
■ Ucrete HPQ	35 – 45	■ Ucrete DP10	45 – 50
■ Ucrete MT	40 – 45	■ Ucrete DP20	45 – 55
■ Ucrete HF60RT	40 – 45	■ Ucrete UD200SR	50 – 60
■ Ucrete HF100RT	40 – 45	■ Ucrete DP30	50 – 60

** Pendulum test value on wet floor with 4S rubber

EN 13036-4 Pendulum Test

Interpretation of results

Below 24	high slip potential
25 – 35	moderate slip potential
Above 35	low slip potential



Our reference in Korolev (Russia):
Globus



Chemical resistance

Ucrete floors have excellent resistance to a broad spectrum of chemicals, including many that will rapidly degrade other types of resin flooring, such as many polyurethane cement systems.

Ucrete floors are unaffected by those compounds marked '**R**' in the table, even after continuous long-term immersion.

There are very few chemicals that will rapidly degrade Ucrete flooring. These are marked with '**NR**' in the table.

Ucrete is suitable for use on floors in wet process areas, where chemicals marked 'L' in the table are employed, provided that reasonable standards of housekeeping are maintained. Note that if valves or pump seals start to leak they should be addressed, as the leakage results in a continuous immersion environment and surface erosion may occur.

Solvents may soften Ucrete on long-term immersion, but Ucrete will often recover when the solvent is removed and the floor is allowed to dry. In practice, most solvents evaporate before they do any damage.

A more extensive chemical resistance chart is available upon request.

Discoloration may occur due to salt deposits, contaminants in solvents, strong dyes and strong acids. This does not affect the performance of the floor.

Such effects are minimized by good housekeeping, especially if ponding is avoided and spillages are not allowed to evaporate to dryness on the floor.

Effective cleaning regimes will enhance the life and appearance of your floor. The use of Ucrete CS floors with the colour-stable topcoat Ucrete TCCS will significantly reduce the amount of staining observed.

For specific advice on the chemical resistance of Ucrete floors, please contact your local Master Builders Solutions office.

Chemicals in the food industry

Ucrete floors are resistant to the common food industry chemicals, for example

Acetic acid, 50 %:

As spirit vinegar widely used in the food industry for cleaning food contact surfaces.

Lactic acid, 30 % at 60 °C:

Indicative of resistance to milk and dairy products.

Oleic acid, 100 % at 60 °C:

Representative of the organic acids formed by oxidation of vegetable oils and animal fats widely encountered in the food industry.

Citric acid, 50 %:

Found in citrus fruits, representative of the wider range of fruit acids which rapidly degrade other resin floors.

Sodium hydroxide, 50 % at 60 °C:

Widely used for cleaning and in CIP areas.



Resistance to common industrial chemicals

Chemical	Conc. %	Temperature °C	Ucrete all grades	Chemical	Conc. %	Temperature °C	Ucrete all grades
Acetaldehyde	100	20	R	Kerosene	–	20	R
Acetic Acid	10	85	R	Lactic acid	5	20	R
	25	20	R		25	60	R
	25	85	L		85	20	R
	40	20	R		85	60	R
	99 (Glacial)	20	L	Lauric acid	100	60	R
Acetone	100	20	L	Maleic acid	30	20	R
Adipic Acid	Saturated	20	R	Maleic anhydride	100	20	R
Ammonium hydroxide	28	20	R	Methacrylic acid	100	20	R
Aniline	100	20	R	Methanol	100	20	R
Antifreeze (Ethylene Glycol)	100	20	R	Methylated spirits	–	20	R
Aqua regia	–	20	L	Methylene chloride	100	20	L
Benzene	100	20	L	Methyl ethyl ketone	100	20	L
Benzoic acid	100	20	R	Methyl methacrylate	100	20	R
Benzoyl chloride	100	20	R	Milk	–	20	R
Blood	–	20	R	Mineral oils	–	20	R
Brake fluid	–	20	R	Motor oil	–	20	R
Brine (Sodium chloride)	Saturated	20	R	N N-dimethyl acetamide	100	20	NR
Butanol	100	20	R	N-methyl pyrrolidone	100	20	NR
Calcium chloride	50	20	R	Nitric acid	5	20	R
Calcium hypochlorite	Saturated	20	R		30	20	R
Caprolactam	100	20	R		65	20	L
Carbon disulfide	100	20	L	Oleic acid	100	20	R
Carbon tetrachloride	100	20	R		100	80	R
Chlorine water	Saturated	20	R	Oleum	–	20	L
Chloroacetic acid	10	20	R	Paraffin	–	20	R
	50	20	L	Perchloroethylene	100	20	R
Chloroform	100	20	L	Phenol	5	20	L
Chromic acid	20	20	R	Phenyl sulfuric acid	10	20	R
	30	20	R	Phosphoric acid	40	85	R
Citric acid	60	20	R		50	20	R
Copper (II) sulfate	Saturated	20	R		85	20	R
Cresols	100	20	L	Picric acid	50	20	R
Crude oil	–	20	R	Propylene glycol	100	20	R
Cyclohexane	100	20	R	Potassium hydroxide	50	20	R
Decanoic (Capric) acid	100	20	R	Skydol® 500B4	–	20	R
	100	60	R	Skydol® LD4	–	20	R
Diethylene glycol	100	20	R	Sodium hydroxide	20	20	R
Dimethyl formamide	100	20	NR		20	90	R
Ethanol	100	20	R		32	20	R
Ethyl acetate	100	20	L		50	20	R
Ethylene glycol	100	20	R		50	60	R
Fats	–	80	R		50	90	L
Formic acid	40	20	R	Sodium hypochlorite	15	20	R
	70	20	R	Styrene	100	20	R
	90	20	L	Sugar	50	20	R
	100	20	L	Sulfuric acid	50	20	R
Gasoline	–	20	R		98	20	L
Heptanoic acid	100	60	R	Tetrahydrofuran	100	20	L
Hexane	100	20	R	Toluene	100	20	R
Hydrochloric acid	10	60	R	Toluene sulfonic acid	100	20	R
	37	20	R	Trichloroacetic acid	100	20	L
Hydrofluoric acid	4	20	R	Turpentine	–	20	R
	20	20	L	Vegetable oils	–	80	R
Hydrogen peroxide	30	20	R	Water (distilled)	–	85	R
Isopropanol	100	20	R	White spirit	–	20	R
Jet fuel	–	20	R	Xylene	100	20	R

R = Resistant

L = Limited Resistance

NR = Not Resistant



Antistatic flooring

Protecting electronic components

As electronic devices get smaller and are used ever more widely, protecting them from the effects of an electrostatic discharge becomes even more critical.

Explosion protection

Wherever solvents are used, whether in processing or for cleaning, there is a potential risk of explosive vapor/air mixtures forming.

Similarly, wherever fine organic powders are handled or generated during processing, powder/air mixtures with the potential for a dust explosion can be generated.

An electrostatic discharge can provide sufficient energy to ignite such mixtures, often resulting in an explosion.

A system approach

Ucrete antistatic floors have the conductive properties needed to control undesirable static electricity. But you need more than an antistatic floor! You need a floor

with the solvent and chemical resistance, the temperature and impact resistance to give you a long-lived floor. It may need to be easy to clean and hygienic, and have the slip resistance to provide a safe working environment.

We produce a wide range of Ucrete antistatic floors, from smooth and terrazzo systems to highly slip-resistant defined profile floors. We want you to have a floor that meets all your needs, and provides the safety of static control.

Note: In order to prevent personnel from becoming charged, they must be in electrical contact with the floor. This will require the use of antistatic footwear.

Undesirable static electricity

- damages electronic equipment
- leads to unwanted accumulation of dust
- causes discomfort and accidents
- ignites explosives, solvent/air or air/powder mixtures

	Resistance to Earth EN 1081	Resistance to Earth EN 61340-4-1	Resistance Person to Earth EN 61340-4-5	Body Voltage Generation EN 61340-4-5
▪ Requirements in EN61340 -5 -2	n/a	< 1 GΩ	< 1 GΩ	<100V
▪ Ucrete MFAS-C	< 50 kΩ	< 50 kΩ	< 35 MΩ	< 50V
▪ Ucrete MF40AS	< 1 MΩ	< 1 MΩ	< 35 MΩ	< 50V
▪ Ucrete DP10AS	< 1 MΩ	< 1 MΩ	< 35 MΩ	< 100V
▪ Ucrete DP20AS	< 1 MΩ	< 1 MΩ	< 35 MΩ	< 100V
▪ Ucrete HPQAS	< 1 MΩ	< 1 MΩ	< 35 MΩ	< 100V
▪ UcreteTZAS	< 1 MΩ	< 1 MΩ	< 35 MΩ	< 50V
▪ Ucrete UD100AS	< 1 MΩ	< 1 MΩ	< 35 MΩ	< 100V



Preventing static electricity

The best way to prevent an electrostatic discharge that might damage sensitive electronic equipment or cause dust or solvent explosions is to prevent the accumulation of static in the first place.

Ucrete antistatic floors are designed to minimize body voltage generation and facilitate dissipation of charge to ground of personnel wearing the appropriate antistatic footwear. More conductive floors are more effective at preventing the accumulation of static electricity.

Explosive handling areas

The Ucrete MFAS-C conductive flooring system should be used wherever explosives are handled.



Our reference in Luton (United Kingdom):
Measurement Technology Ltd



The hygienic solution

Hygiene should be seen in the round. For the best results, you need the right equipment and cleaning procedures, but you also need hygienic working practices.

The right floor will also help. Ucrete floors are dense and impermeable and make maintaining hygiene standards easier.

As cleanable as stainless steel

All Ucrete floors are dense and impervious throughout their thickness and have been shown to have the same levels of bacterial cleanability as stainless steel.

Does not support biological growth

Ucrete flooring is essentially inert, it is non-biodegradable and will not support bacterial or fungal growth. This is one of the reasons why Ucrete floors have been used throughout the pharmaceutical and food industries in environments requiring the highest standards of hygiene for many years.

Cleaning regime

Whatever the environment, good housekeeping will help keep your floors looking their best and help ensure that they provide a safe and attractive working environment.

For the best results, mechanical cleaning equipment should be used, particularly on larger floors, and care taken to avoid aerosol formation.

Cleaning guidelines are available from your local Master Builders Solutions expert.

Without durability, there is no hygiene

Failing floors are never hygienic. every crack, delamination and porosity in the floor enables bacteria to grow beyond the reach of cleaning.

We make Ucrete floors as tough as possible to help you maintain hygiene standards without the need for ongoing maintenance

Hygienic
working
practices



Safe, hygienic
Ucrete flooring

Certified
food safe
flooring

Cleanable
as stainless
steel





Good
cleaning
and house-
keeping



Hygienic, durable
flooring solutions



Does not
support
biological
growth



Long
lasting:
trusted since
1969

Certified hygiene

Independent tests undertaken by Campden BRI in the UK demonstrate that Ucrete floors can be effectively sanitized to a standard comparable to stainless steel.

In 2018, independent microbiological testing by the Polymer Institute (Germany) using the test organism *Bacillus subtilis*.

Initial germ content: 1.500.000 KbE/25 cm²

Disinfectant	KbE/25 cm ² after reaction time of		
	1 h	24 h	72 h
p-chloro-m-cresol, 0.3 %	647 / 403	195 / 252	< 10 / < 10
Alkyl dimethyl benzyl ammonium chloride, 0.1 %	136 / 176	270 / 59	< 10 / < 10
p-toluene sulfon chloramid-Na, 5 %	155 / 165	< 10 / < 10	< 10 / < 10
Formaldehyde, 5 %	< 10 / < 7	< 10 / < 10	< 10 / < 10
Ethanol, 70 %	313 / 282	30 / 34	< 10 / < 10
Water	4400 / 2800	402 / 379	< 10 / < 10

The tests show the efficacy of a range of industrial sanitizers on a Ucrete UD200 floor. There is no growth after 72 hours, even on the control using just water, demonstrating that Ucrete does not support biological growth, ensuring that the floor remains hygienic from the time of cleaning until production restarts.

Why seamless flooring?

Joints are weak points in any floor. Ucrete floors need no joints except those present in the substrate concrete and we can advise on how to design out such joints to create a seamless hygienic floor. Tiled floors exhibit joints between the tiles which degrade over time, even when filled with epoxy grout, and open up when the floor is subject to hot water spillage, allowing bacteria to grow beyond the reach of cleaning.



Our reference in Versmold (Germany):
Reinert meat factory



Long-term performance

Best value

It is easy to understand why a Ucrete floor is such good value for money, when you consider the risk to hygiene and safety of a failing floor and the costs in lost production and management time of replacing it. Ucrete gives you the best value for your money because it is a long-lived floor. But where does this durability come from?

The durability is a result of a combination of factors, from the blend of high strength with resilience to the chemical and mechanical resistance of the floor. Aggregates are specifically selected for their toughness and abrasion resistance. We use the best raw materials, not the cheapest.

Proven in service since 1969

In the food industry, for example, organic acids are endemic; there are organic acids from milk, fruit or vegetable oils. As spillages evaporate, concentrations rise and so become more aggressive. The effects of such chemicals are accumulative and will become evident over time. The superior chemical resistance that a Ucrete floor provides is the safety margin that helps ensure that a Ucrete floor lasts 20 years or more.

Thicker floors are more durable than thinner floors, because the extra thickness protects the bond line from stress in service. Larger aggregates impart better scratch resistance and enable a floor to maintain its slip-resistant profile, especially where there is impact or frequent movements by hard plastic or steel wheeled traffic.

Durability comes from below

In order to get the best performance from your Ucrete floor, a well-designed substrate is required. Detail drawings and guidance notes are available. We can draw on our experience of over 50 years of Ucrete flooring to help you get the best results possible.

Contact your local Ucrete representative; they will be happy to assist you in making the right specification to meet all your needs.



Still in service after 35 years

In 1984, the Magor Brewery installed 2800 m² of Ucrete flooring in its keggling hall (above). The floor takes hot water and chemical spillage under the keg washers as well as the impact from the occasional keg that manages to escape. The line fills up to 1000 barrels per hour round the clock. Stopping is not an option.

The initial investment in a quality Ucrete floor was far outweighed by the huge cost that closing this plant to replace the floor would entail. Following this floor, the brewery has installed many thousands of square meters of Ucrete floors and continues to do so today.



Our contribution to sustainability

Making good use of limited resources

Building and maintaining any kind of structure means facing a key sustainability challenge: the consumption of natural resources.

Whole-life costs

Ucrete industrial flooring solutions contribute to sustainability in many respects throughout their life cycle. The longevity of Ucrete floors, with many 20 – 30-year-old floors still in service, helps to save precious resources. What could be more wasteful of raw materials, time and energy than ripping up and throwing away a floor after five or ten years?

Climate protection

The contribution of Ucrete floors to climate protection and saving of energy is demonstrated by independent environmental impact assessment.

BMG Engineering, Zurich, made such an assessment of Ucrete flooring. They looked at a scenario of a large

commercial kitchen, as in a prison or a hospital, and compared a Ucrete UD200 specification against a typical tiled floor specification that traditionally might be used for this application.

The results are compelling; square meter for square meter an equivalent tiled floor was found to have 50 % higher cumulative energy demand, 70 % higher global warming potential, 200 % higher ozone depletion potential and 50 % higher water use than a 9 mm thick Ucrete UD200 floor. Clearly, Ucrete offers significant benefits for the environment.

Sustainable building

Systems to evaluate the sustainability of a building are becoming more and more important in the construction industry, and confirm the contribution of Ucrete floors to sustainable construction.

The Leadership in Energy & Environmental Design Green Building Rating System LEED® provides a process to verify





that a project was designed and built in a sustainable manner. It covers performance in key areas of human and environmental health: sustainable site development, water savings, energy efficiency, materials selection and indoor environmental quality.

With regard to materials selection, a series of credits are made to encourage the use of more sustainable and environmentally friendly materials. A Product Information Statement for LEED® New Construction (NC) Version 3.0 Credit Documentation is available for all Ucrete flooring products and systems.

Protecting the air that we breathe

We are becoming increasingly aware of the importance of clean air. Emissions impacting air quality are controlled by a variety of national regulations and voluntary standards.

The Indoor Air Comfort Gold certification from Eurofins combines the most stringent specifications from all relevant European regulations and voluntary labels. Audit of produc-

tion and quality control ensure that Ucrete meets all product emissions requirements. Ucrete grades give very low emissions and conform to all the emissions requirements for indoor flooring systems in Europe, including AgBB in Germany, M1 in Finland and Afsset in France. Ucrete has been measured at A+, the best French emissions rating.

This demonstrates that Ucrete can provide floors without any volatile compounds that might taint foodstuffs or affect the well-being of personnel.

Keeping us safe

In daily use, Ucrete floors help our customers in many industries to meet their sustainability needs, for example when handling aggressive and noxious chemicals, Ucrete helps to provide the containment that prevents them from escaping into the environment.

Nothing is more wasteful than an accident in the workplace. Ucrete slip-resistant and antistatic floors work tirelessly to keep everyone safe.





Thinking pharmaceuticals

Think functionality

Pharmaceutical industry floors need to fulfill a number of complex functions. Above all, they must help ensure product quality and worker safety.

Clean rooms in which medicines are manufactured and packed must be sterile and dust free, which requires excellent cleanability of the floor.

The cleaning qualities of Ucrete floors score highly here: being dense and impervious enables them to be cleaned to a standard comparable to stainless steel, making them an extremely hygienic solution for the pharmaceutical industry.

But floors can only maintain their cleanability and hygienic properties if they resist the solvents, chemicals and the heavy abrasion from hard plastic and steel-wheeled traffic that are

widely encountered. Ucrete is renowned for its chemical resistance and durability, providing long-lived solutions, ensuring hygiene standards and minimizing maintenance for years to come.

Many pharmaceutical production areas involve work with extremely fine organic powders, creating the potential for dust explosions, while volatile organic compounds are also used widely, in processing and for cleaning and sanitizing. Consequently, the control of static electricity is a critical safety factor which is readily addressed using one of our range of Ucrete antistatic flooring solutions.

From tanker reception areas and bunded stores, through processing to clean rooms and tableting halls, Ucrete flooring provides the appropriate floor to meet the diverse needs of the pharmaceutical industry.

Typical fields of application

For over 40 years Ucrete has been providing durable floors throughout the pharmaceutical industry. For example, in primary and secondary manufacture, in wash bays, clean rooms, aseptic areas, grinding and blending, pilot plants and tableting facilities.



Our reference in Newcastle
(United Kingdom): Sanofi

The image shows an industrial setting. In the foreground, there is a large, red, cylindrical machine with a blue base. The machine has a label that reads "R139". Above it, there is a control panel with a digital display and buttons. The floor is a red speckled Ucrete TZ floor. In the background, there are various pipes, valves, and industrial equipment. The overall scene is well-lit and organized.

Think aesthetics

As an important part of daily life, a floor must not only be functional and economic, but should also be aesthetically pleasing – even in industrial facilities.

Ucrete TZ floors demonstrate that even the toughest floor can look good!

While having the mechanical and chemical performance that is expected from a Ucrete floor, Ucrete TZ has the aesthetics of a seamless terrazzo floor from cove to cove. It will withstand regular and routine discharges of boiling water and is resistant to solvents. An antistatic version is available

For specific advice on Ucrete TZ floors, please contact your local Master Builders Solutions office.



Thinking chemicals

Think functionality

The chemical industry poses several challenges for flooring. For example, if leakage or spillage of often hazardous chemicals occurs, it must be contained until it can be effectively and safely dealt with. So floors need to be dense and impervious with the required chemical resistance, easy to clean and with appropriate levels of slip resistance

Ucrete meets these requirements, and has done for over 50 years. It is quick and easy to install, with a wide range of slip-resistant profiles and a broad spectrum of chemical resistance; to acids, alkalis, fats, oils, solvents and salt solutions. This makes it the ideal flooring wherever chemical resistance is imperative.

A seamless lining

Ucrete provides a dense and impermeable surface protection system that can be used in wet and dry process areas and can also be used to line bunds, plinths, channels and drains, thus ensuring that chemicals are contained and do not escape into the environment.

For ATEX areas, too

Wherever combustible powders, solvents or gases are handled, there is a real risk of explosions. Ucrete antistatic and conductive floors provide not only the required chemical and solvent resistance but ensure that static electricity is kept under control.



Typical fields of application

For over 50 years Ucrete has been providing durable floors throughout the chemical industry. For example, in bulk chemical manufacture, electroplating, tanning, textiles, mining, heavy metal refining, household chemicals, toiletries, biodiesel production, bunded stores, wet process areas, tanker loading bays.

Thinking economically

Ucrete floors and renders are tolerant of substrate moisture and rapidly installed over a wide range of site conditions, often allowing work to proceed without the need for weather protection, thus minimizing downtime and providing the most cost-effective protective lining solution.

For detailed advice, contact your local Master Builders Solutions expert.



Think practically

Any joints in the substrate will create weak points in the protective Ucrete lining, which will require ongoing maintenance. If the joints are designed out, maintenance costs are reduced and the performance of the floor enhanced.

Ground floor concrete slabs are frequently cut into 6 m bays to control the shrinkage of the concrete. Design your floor slab with adequate steel reinforcement to control shrinkage instead and the joints are gone.

Joints are frequently associated with drainage channels, for example where a Ucrete floor meets a metal channel lining or grating supports. In many circumstances, channels can be lined with Ucrete throughout, removing the need for such joints, as demonstrated at Fruit of the Loom

Where joints are required, they should be located where they are accessible for inspection and maintenance.

For further information on substrate design, please contact your local Master Builders Solutions expert.

Dyehouse at Fruit of the Loom. Channels fully lined with Ucrete, removing the need for the joints normally associated with a channel and enhancing the life of the floor.



Thinking food

Think functionality

The food industry provides a tough working environment for floors. Hard wheeled bins and racks, high-temperature spillages and thermal-shock environments stress the floor; often large numbers of workers are moving on greasy floors and need to be kept safe.

No hygiene without durability

Above all, food quality must be maintained. Hygiene is critical. For a floor to remain hygienic it must withstand the chemicals, impact and abrasion of the process environment. A failing floor can never be hygienic; every patch, every replaced tile, every maintenance visit compromises hygiene and food safety. That's why we make Ucrete floors so tough.

Think hygiene

You know your floor has to be cleaned, so choose a floor that can be cleaned to the same standard as stainless steel. And choose a floor that does not absorb moisture, so you do not waste energy extracting the moisture from the air. And choose a floor that does not support bacteria and mold growth, so when you have cleaned a floor it stays clean. Choose a Ucrete floor.

Your Ucrete floor will conform to the International Food Standard (IFS), meet the most stringent VOC emissions standards and be non-tainting, even during application. For a Ucrete floor that meets all of your needs, please contact your local Master Builders Solutions office.



Typical fields of application

For nearly more than 50 years Ucrete has been providing durable floors throughout the food and beverage industry. For example: abattoirs, airline catering, bakeries, breweries, commercial kitchens, confectionary, cooked and cured meats, dairies, distilleries, freezers, fruit juice presses, meat fish and poultry preparation and processing, powdered milk, soft drinks, ready meals, sugar refining, vegetable processing, vegetable oil processing, wash bays.





Think aesthetics

You may need a highly profiled floor because of heavy grease contamination during the course of the day, but the factory floor should still look good when customers come to visit.

Ucrete CS systems offer the slip resistance you need, are easy to clean and have the aesthetics you want. Light colours that keep their colour, that resist staining and provide a bright, safe and attractive working environment.

For specific advice on Ucrete floors, please contact your local Master Builders Solutions office.



Ucrete colour portfolio

Standard grades



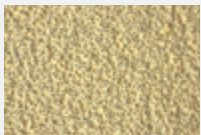
■ Blue



■ Green/Brown



■ Red



■ Cream



■ Gray



■ Yellow



■ Green



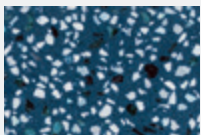
■ Orange



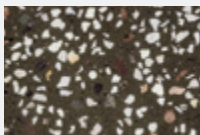
■ Bright Yellow

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.

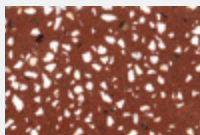
Ucrete TZ and Ucrete TZAS



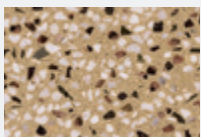
■ Blue



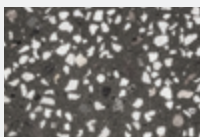
■ Green/Brown



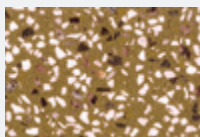
■ Red



■ Cream



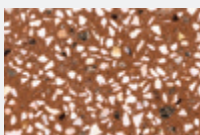
■ Gray



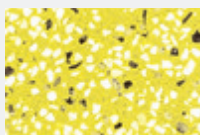
■ Yellow



■ Green



■ Orange



■ Bright Yellow

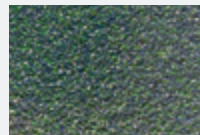
Ucrete HPQ



■ Constable



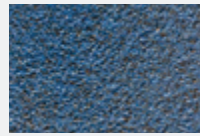
■ Monet



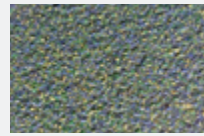
■ Da Vinci



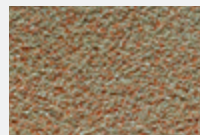
■ Picasso



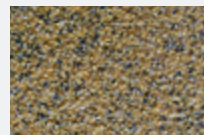
■ Goya



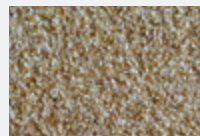
■ Renoir



■ Lowry



■ Titian



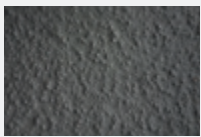
■ Matisse



■ Turner

All colours shown are approximate. The nine standard-grade colours are used in many different flooring systems. The exact shade of the floor will depend upon the particular specification and on-site conditions.

Ucrete CS



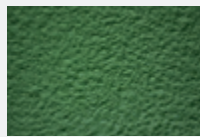
▪ Green/Brown



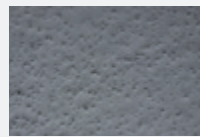
▪ Blue



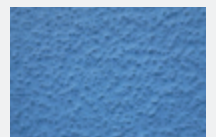
▪ Yellow



▪ Green



▪ Gray



▪ Light Blue



▪ Light Green



▪ Light Gray



▪ Orange



▪ Cream



▪ Red



▪ Bright Yellow

An extended range of colour-stable light and pastel shades are available to enhance the aesthetics of your workplace. Ucrete CS systems are resistant to discoloration due to staining or ultraviolet light





Master Builders Solutions

Master Builders Solutions

The Master Builders Solutions brand brings all of expertise together to create chemical solutions for new construction, maintenance, repair and renovation of structures. Master Builders Solutions is built on the experience gained from more than a century in the construction industry.

The know-how and experience of a global community of construction experts form the core of Master Builders Solutions. We combine the right elements from our portfolio to solve specific construction challenges. We collaborate across areas of expertise and regions and draw on the experience gained from countless construction projects worldwide. We at Master Builders Solutions leverage global technologies, as well as our in-depth knowledge of local building needs, to develop innovations that help make more successful and drive sustainable construction.

Our comprehensive portfolio

- Concrete admixtures
- Cement additives
- Chemical solutions for underground construction
- Waterproofing solutions
- Sealants
- Tile fixing systems
- Concrete repair and protection solutions
- Performance grouts
- Performance flooring solutions
- Wall systems
- Fire protection systems

Please do not hesitate to contact us for more specific information! (see back cover for local contact details)





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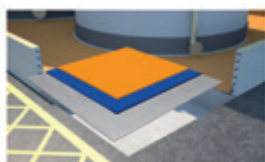
<https://online-planning.master-builders-solutions.com/>



Solunaut

Solunaut is a tool designed for all professionals in the construction industry. It provides an overview of our solutions by application in the food and beverage, chemical and wastewater industry, including TDS and the possibility of contacting us directly if there are any questions.

<https://solunaut.master-builders-solutions.com/>



BIM

With more than 200 BIM objects, and soon more than 400 Revit models, the Master Builders Solutions BIM portfolio is the largest in the construction chemicals industry. It covers thirteen construction industry segments, such as Waterproofing Systems, Performance Flooring, Concrete Repair or Protective Coatings, as well as Expansion Control Systems and Wall Systems.

<https://www.mbcc-group.com/en/digital-offerings/vdc/>



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Ucrete®

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