



HYCHEM
EPOXY SYSTEMS

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Hycrete polyurethane cement

Scientifically engineered flooring
systems proven in the most
extreme environments



HYCHEM
EPOXY SYSTEMS

HYCRETE PU SYSTEMS, THE HYCHEM STORY

Hychem are Australian formulators and manufacturers of a range of specialist Polymer systems.

For nearly 30 years, Hychem has specialised in polymer flooring systems for a range of Australian industries.

Our Hycrete PU technology has been developed to withstand the toughest environments with the capability of specific design for almost every flooring scenario.

Specifiers and Asset owners rely on Hychem's trusted systems time and time again. Hycrete is designed to last and perform, it is without doubt one of the toughest customised floor systems in Australia.





Hycrete PU cement

UNIQUE ADVANTAGES AND BENEFITS

Hygienic and safe surface finish

Strict food safety requirements in Australia require floor finishes to be clean and serviceable. It is of paramount importance in many industries that floors do not harbour potentially dangerous bacteria.



Hycrete contains the world leading antimicrobial Ultrafresh™ technology. Hycrete treated with Ultra-Fresh® has been conclusively proved that the floor surface displays effective resistance to bacteria, fungi, mould and mildew.



Hycrete is certified by HACCP Australia as suitable floor surfacing materials for food and beverage facilities that operate in accordance with HACCP based programs.



Also accredited under the Australian Paint Approval Scheme.



Hychem is an ISO9002 quality assured company.

Slip resistance

In every situation the appropriate floor surface profile is essential to provide a safe and efficient working environment. Minimising slips, trips and falls requires many design considerations. Hycrete PU floorings offer a range of industry standard tested surface profiles. Smooth to highly slip resistant, tailor made to suit every working environment across all industries.

Thermal shock resistance

It is well known that in extreme thermal shock environments a well designed flooring system of high quality is required.

The specialised filler composition of Hycrete PU flooring enables them to withstand high temperature and extreme thermal shock conditions including routine and regular discharges of boiling water and steam cleaning. Each Hycrete systems offer a wide range of service temperatures and have high thermal resistance to cyclic freeze, thaw and high temperature cleaning regime.

Chemical resistance

Hycrete PU floors have excellent resistance to a wide range of chemicals including many organic acids and solvents that will rapidly degrade other types of resin flooring. Hycrete floors are designed to resist the commonly encountered manufacturing chemicals such as Acetic acid, lactic acid, Oleic acid of vegetable and animal fats.

In many situations, Hycrete can be the chemically resistant solution to chemical bunds and heavy industrial processing facilities.

Odourless application

Hycrete systems have passed Green building council of Australia tests for low VOC. The range is solvent free and will not taint food or cause issues in public ventilation.



Meets requirements:
Green Building
Council of Australia

Durability

Hycrete Polyurethane cement has durability characteristics above and beyond most expectations. The combination of specialist resin and selection of the finest high quality compositions guarantees strength, durability and longevity. High mechanical strength above and beyond most other flooring systems.

Hycrete polyurethane cement

Welcome to the world of Hycrete flooring. The toughest floors in the Hychem range designed specifically for extreme service conditions.

A range of purposely designed floors for every industry. A proven flooring system that will not let you down, even after years of abuse. Hycrete flooring systems can be tailored to suit specific requirements. Hycrete is designed and proven for use in Australian industry and climatic conditions.

SYSTEM BENEFITS

- Tested antimicrobial performance
- Odourless non tainting to food
- Offers electrostatic propensity protection
- Excellent chemical resistance
- High impact and abrasion resistance
- High thermal shock resistance
- Moisture tolerant and compatible to newly cured concrete
- Wide service temperatures from -25°C to +120°C
- Easy to clean and maintain (steam cleanable)
- Complies to HACCP
- Fire resistant
- Fast return to service, adjustable cure timer
- Available in many colours
- Pre measured kits – guarantees uniform consistency

AREAS OF APPLICATION

- Dairy, food and beverage production facilities
- Warehouse and distribution centres
- Chemical and minerals processing plants
- Mining, ammonium nitrate storage facilities
- Meat processing plants
- Chiller rooms
- Food waste/treatment plants
- Heavy engineering workshops

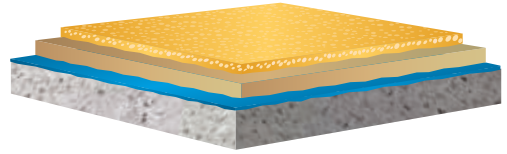


HYCRETE UNIVERSAL

Medium duty, high grade slip resistance, incorporating Hycrete TC top coat technology. Antimicrobial, odourless solvent free polyurethane cement floor system. Excellent chemical resistance, range of surface finishes for varying anti-slip requirements. Temperature resistance 0°C to +90°C

System thickness 4-6mm thickness.

Top coat	Coloured matt/gloss	Hycrete PU TC
Seal coat	Coloured matt/gloss	Hycrete PU TC
Body Coat	Coloured broadcast with aggregate	Hycrete PU SL
Primer	Project specific	Epoxy or PU based

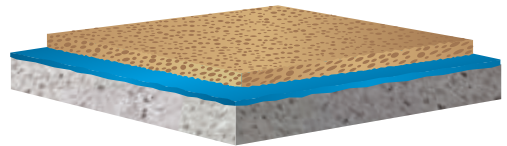


HYCRETE UNIVERSAL SMOOTH

Medium duty, self smoothing, antimicrobial, odourless solvent free polyurethane cement floor system. Excellent chemical resistance, Smooth matt finish. Temperature resistance 0°C to +90°C.

System thickness 3-4mm thickness.

Top coat	Coloured matt	Hycrete PU SL
Primer	Clear	Epoxy or PU based
Substrate/concrete		

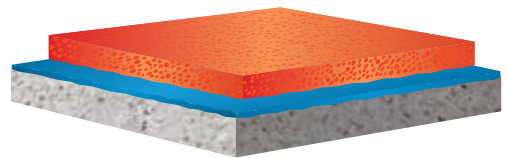


HYCRETE THERMO SHIELD

Heavy duty easy to trowel grade floor. High thermal shock resistance, excellent chemical resistance, antimicrobial, highest possible mechanical wear. Temperature resistance -25°C to +120°C

System thickness 6-12mm.

Body coat	Coloured blended with aggregate	Hycrete PU Thermo
Substrate/concrete		

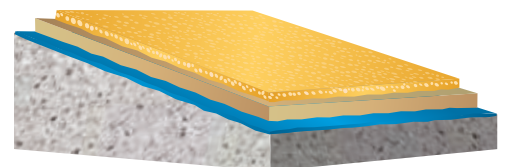


HYCRETE RAMP GRADE

Unique formula of Hycrete Universal for sloping floors. Ideal for steep falls to drains etc. Heavy duty, antimicrobial, excellent chemical resistance, a range of anti-slip finishes to suit requirements. Temperature range 0°C to +90°C

System thickness 3-6mm.

Seal coat	Coloured matt	Hycrete TC
Body coat	Coloured broadcast with aggregate	Hycrete PU Ramp Grade
Primer	Epoxy or PU based	

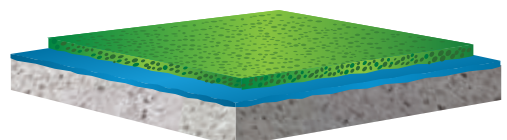


HYCRETE ROLL COAT

A multiple roll coat system for less harsh environments. Antimicrobial, anti-slip, smooth, can tolerate high substrate moisture.

System thickness 200-450 microns.

Top coat	Coloured optional broadcast with aggregate	Hycrete TC
Substrate/concrete		





TECHNICAL SPECIFICATIONS

CHEMICAL	Hycrete SL
ORGANIC ACIDS	
Acetic acid 5%	Excellent
Acetic acid 10%	Excellent
Acetic acid 20%	Good
Butyric acid 10%	Excellent
Citric acid 50%	Excellent
Lactic acid 15%	Excellent
Oleic acid	Excellent
MINERAL ACIDS	
Concentrated hydrochloric	Good
Nitric acid 5%	Excellent
Nitric acid 20%	Good
Nitric acid 35%	Spillage and 8 hour cleanup
Phosphoric acid 15%	Excellent
Phosphoric acid 35%	Excellent
Phosphoric acid conc.	Spillage and 8 hour cleanup
FATS, OILS & SOLVENTS	
Animal fats	Excellent
Ethyl alcohol	Good
Kerosene	Excellent
Lubricating oils	Excellent
Aromatic and ketone solvents	Poor to fair
Petrol unleaded	Excellent
Skydrol	Good
Vegetable oils	Excellent
WATER-BASED CHEMICALS	
Ammonium hydroxide 20%	Excellent
Ferric chloride 10%	Excellent
Salt solutions 10%	Excellent
Sodium hyperchloride 16%	Good
Sodium hydroxide 20%	Excellent

COLOURS



Beige RAL 1001



Maize Yellow RAL 1006



Sky Blue RAL 5015



Grass Green RAL 6010



Light Grey RAL 7035



Dusty Grey RAL 7037



Grass Green RAL 6010



Red Oxide



Jet Black



Curtain Call

TECHNICAL NOTES ON APPLICATION

Hycrete is installed nationwide by Hychem recommended and approved Master Contractors.

Hycrete is packaged in factory measured 3 & 4 component kits. This guarantees uniform consistency in finish and colour throughout each application and project.

Hychem can assist in the specification to ensure the correct system is chosen.

Hychem has assembled an experienced dedicated nationwide team of professional flooring consultants with strong technical knowhow of the Hycrete flooring system.

PREPARATION OF SUBSTRATE

Hycrete has the unique advantage of being suitable for application to 7 day old concrete.

Hychem recommends surface preparation is carried out in accordance with industry standards and publications such as NACE 02203 item No. 22420 or ICRI Technical Guideline No. 03732.

PRIMER SYSTEMS

New or old concrete quality and finishes can vary from one project to the next, the consideration for a suitable priming system is important. Hychem offer a range of primer options depending on the individual application.

ANTI SLIP

A range of non-slip aggregate types and size are used to create industry standard non-slip floors. Bauxite, aluminium oxide and quartz sand are commonly used and tested to Australian non-slip standards.

Hycrete systems have been tested for slip ratings from R9 to R13.

HYCRETE COVING SYSTEMS

Hychem have a range of coving specifications to suit various structural elements. Coving specifications can be tailored to conform to export requirements and other industry standards.

