

# Hycrite polyurethane cement

Scientifically engineered antimicrobial  
flooring systems proven in the most  
extreme environments



**HYCHEM**  
CONSTRUCTION RESINS

## HYCRETE PU SYSTEMS, THE HYCHEM STORY

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

For nearly 30 years, Hychem has specialised in resin 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 continually rely on Hychem's trusted resin systems. Hycrete is designed to last and perform and is without doubt one of the toughest customised flooring systems available.





# 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 Ultra-Fresh technology. Hycrete treated with Ultra-Fresh has been conclusively proven to provide effective resistance to bacteria, fungi, mould and mildew.



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



Hycrete is 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 floors 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

Floors subject to extreme thermal variations require a system specifically designed to withstand such aggressive conditions.

The unique filler composition of Hycrete PU offers exceptional resistance to high temperatures and extreme thermal shock conditions including routine and regular discharges of boiling water and steam.

### Chemical resistance

Hycrete floors are designed to resist the commonly encountered manufacturing chemicals such as Acetic acid, Lactic acid and Oleic acid from vegetable and animal fats.

Hycrete is also used as a chemically resistant surface treatment for 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 PU cement has exceptional durability characteristics. The combination of specialist resins and high quality blended fillers guarantees strength, durability and longevity.

# Hycrete polyurethane cement

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

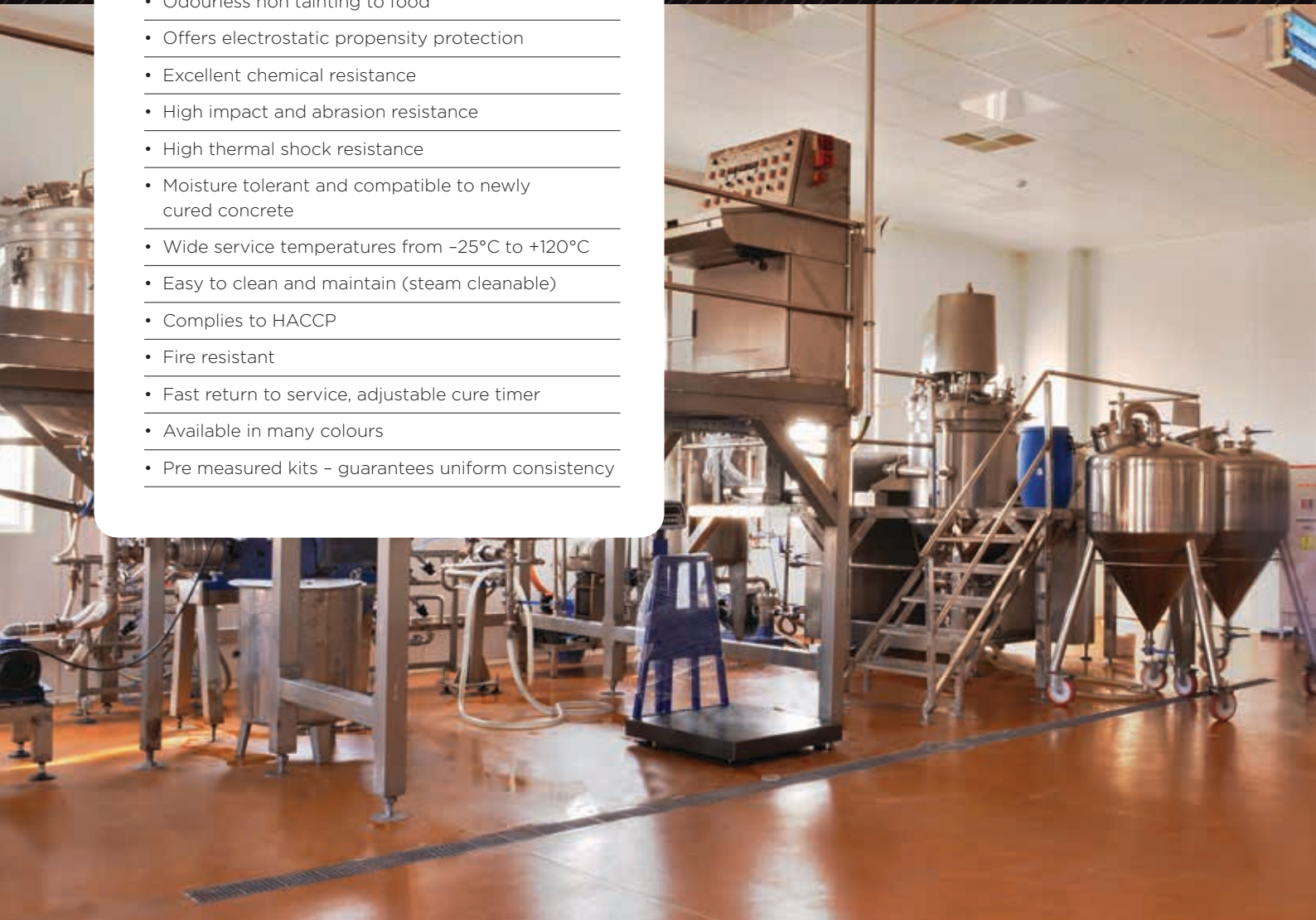
A range of purposely designed floors for every industry. A proven flooring system that will not let you down, even after years of abuse. Hycrete flooring systems can be tailored to suit specific requirements. Hycrete is designed and proven for use in Australian industry and climatic conditions.

## 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

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

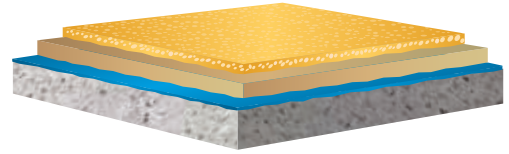


## HYCRETE UNIVERSAL

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

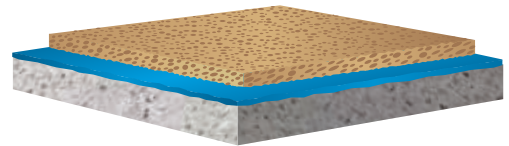


## HYCRETE UNIVERSAL SMOOTH

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	Hycrete PU SL
Primer	Clear	Epoxy or PU based
Substrate/concrete		

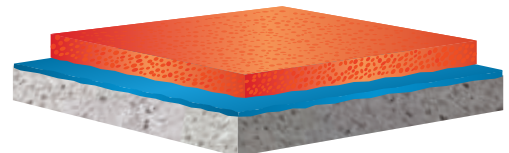


## HYCRETE THERMO SHIELD

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.

Top coat	Coloured	Hycrete PU SL
Body Coat	Coloured broadcast with aggregate	Hycrete PU Thermo
Primer	Clear	Epoxy or PU based
Substrate/concrete		

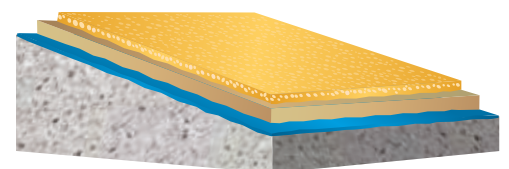


## HYCRETE RAMP GRADE

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

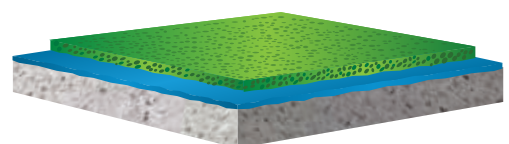


## HYCRETE ROLL COAT

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
<b>ORGANIC ACIDS</b>	
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
<b>MINERAL ACIDS</b>	
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
<b>FATS, OILS AND SOLVENTS</b>	
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
<b>WATER-BASED CHEMICALS</b>	
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



Traffic Grey B RAL 7043



Red Oxide



Jet Black

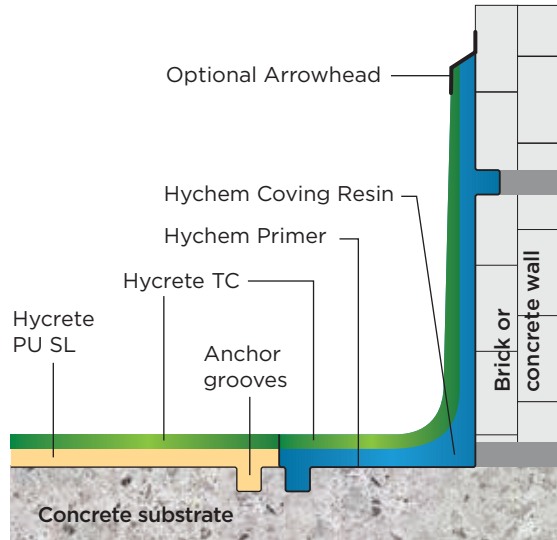


Curtain Call

## 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.



## 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.

## SLIP RESISTANCE

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

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

## TO COMPLIMENT YOUR HYCRETE PU FLOOR, HYCHEM ALSO OFFER:

- Heavy duty food grade trafficable jointing systems
- Trafficable waterproof membranes
- Anti-static and conductive systems
- Flexible flooring systems for suspended slabs or steel surfaces
- Vertical grade wall & ceiling coatings
- Anti-corrosive systems for chemical bunds
- Rapid cure systems – return to service within hours
- Decorative, heavy duty and seamless epoxy and polyurethane systems to replace traditional vinyl
- A range of densifiers, hardeners and sealers to prolong the life of your concrete floors

## GLOBAL EXCELLENCE IN OUR PRODUCT DESIGN

Hychem are long established formulators and manufacturers of a range of polymer flooring and coating systems. We have a keen dedication to research and development through a combination of our state of the art laboratory in our Sydney plant and our practical experiences accumulated over many years in the field.

To further enhance our industry proven products and systems, Hychem enjoy strong technical alliances with a number of European based leaders in resin technology.



**HYCHEM**  
CONSTRUCTION RESINS

Hychem are a national company with representation in all the major states and have access to a comprehensive list of approved master applicators who we are happy to recommend.

Contact Hychem for advice regarding your flooring needs.

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