Chembase Treatment System (CTS)

Application and treatment of pavement and tennis court sub-base layers

Product: Chembase® C-SSSB1 | Research and development

“It costs you nothing to find out how much you can save.”

What is a pavement?

A hard, paved surface

Covered in concrete or asphalt, like a road or driveway. It can be any paved surface, such as a footpath or a paved area in a park.

A firm, level surface

The word comes from the Latin pavimentum: a level surface that has been beaten firm.

Its job: carry load

A pavement's primary function is to transmit loads to the sub-base layers and the underlying soil.

Flexible and rigid pavements

Flexible

Surfaced with bituminous (asphalt) materials over sand and gravel or crushed stone.

Rigid

Built with a Portland cement concrete surface course. The most common type is unreinforced.

Four types of rigid pavement

JPCP

Jointed plain concrete pavement.

JRCP

Jointed reinforced concrete pavement.

CRCP

Continuously reinforced concrete pavement.

PCP

Pre-stressed concrete pavement.

What makes a pavement safe to drive on

Friction

Grip between the wheels and the surface.

Smoothness

An even road surface.

Surface texture

The character of the top of the pavement.

Drainage

Water drains off the surface.

Once CTS has treated the sub-base, the top layer can be asphalt, concrete, flagstone, cobblestone, artificial stone, brick, tile or timber.

Four tennis court surfaces

Grass

The traditional lawn surface, and the fastest, with a low bounce.

Clay

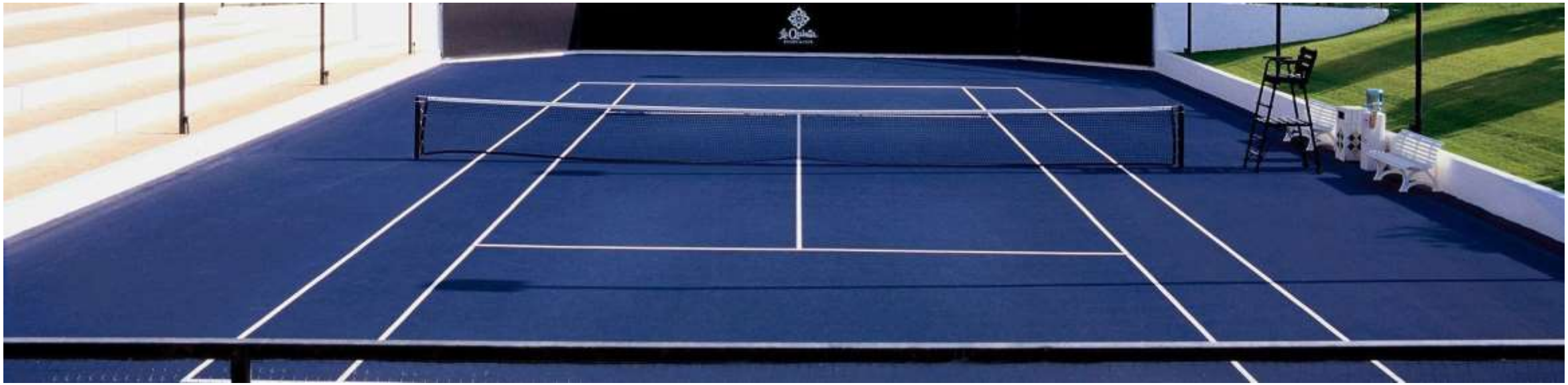
Made of crushed shale, stone or brick.

Hard

A concrete or asphalt base with an acrylic coating. The most common.

Artificial grass

A synthetic alternative to lawn.



One product, supplied in two parts

PART A

Polymer-Stabiliser

+

PART B

Activator

Chembase®
C-SSSB1

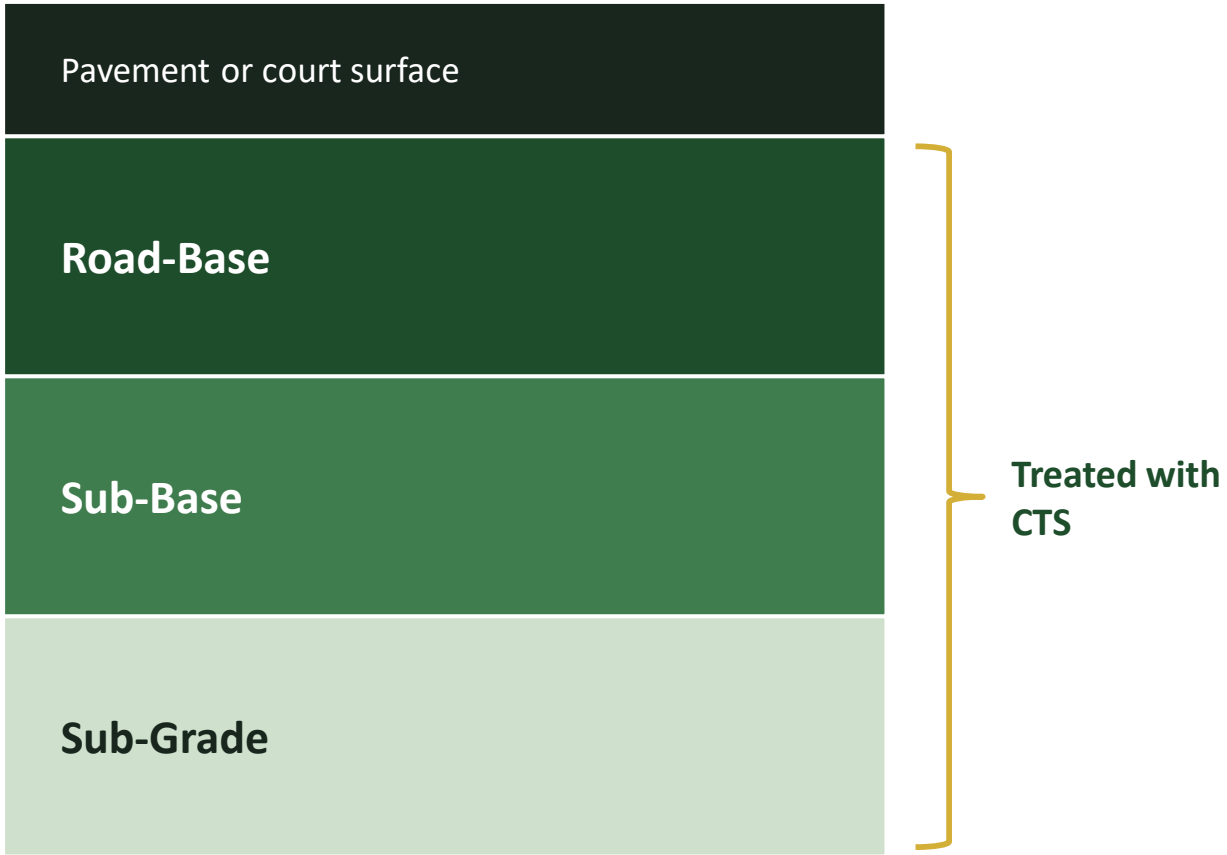
Five characteristics
combined in one product

A simplified range

- Five different chemistry characteristics are now combined into a single Chembase product.
- The application and treatment methods stay the same.
- The same characteristics, benefits and advantages are retained.

Naming: CTS stands for Chembase Treatment System. Chembase is also known as Chembase International and Chembase International Group.

Where CTS works: beneath the surface



Indicative cross-section

CTS modifies the properties of the existing soil to improve performance and durability.

- **Greater strength**
- **Higher load-bearing capacity**
- **Resistance to moisture-related issues**

Chembase and conventional road construction work together.

From stabilised layers to lower costs

1. **Stabilised base layers**
   CTS stabilises the road-base, sub-base and sub-grade.
2. **Less water, fewer potholes**
   Water leakage and potholes are reduced in the treated area.
3. **Less maintenance**
   The treated area needs less ongoing repair.
4. **Lower cost, longer life**
   Reduced costs and greater longevity for the treated area.

Performance benefits of treated layers

CBR increase

Raises the California Bearing Ratio (CBR), a standard measure of soil strength.

Water resistance

Treated layers resist water, limiting moisture-related damage.

Liquefaction resistant

Treated soil resists liquefaction, the loss of strength in saturated ground.

Freezing-condition tolerance

Tolerates freezing conditions.

Oil and petroleum barrier

Prevents oil and petroleum penetrating the treated soil.

Longevity

A long service life for the treated area.

Practical and environmental benefits

On site

Workable in any weather
Application is not held up by conditions.

Stable once diluted
The diluted product will not oxidise.

Re-compactable
Treated soil can be re-compacted (20 years).

Savings
Less maintenance and reduced costs.

Safety and sustainability

Safe to use
Product-safe and environmentally safe.

Waste plastic and glass
Shredded plastic or stained glass added to treated soil increases CBR.

Ash waste
Ash added to treated soil increases CBR.

Saltwater
Saltwater can replace fresh water, and increases CBR.

Brick pavements
Can be used in brick pavement manufacturing.

CTS for pavements and tennis courts

Stronger base

CTS increases the strength of the treated sub-base, for better performance.

Water resistant, fewer potholes

Less cost and less maintenance, resulting in a longer-lasting pavement.

All court types

CTS can treat the sub-base layers of every type of tennis court, improving long-term durability.

It costs you nothing to find out how much you can save

Talk to Chembase about treating your road-base, sub-base and sub-grade layers.

INDEPENDENT UNIVERSITY REPORTS

Reports from The University of Sydney and UNSW (University of New South Wales) are available at www.chembase.com.au

CHEMBASE INTERNATIONAL GROUP

+61 2 8566 3344

info@chembase.com.au

www.chembase.com.au

Chembase International Group Pty Ltd
ABN 98 660 823 316