

SPECIFICATIONS FOR SPORTS COURT PLATFORMS

This specification provides the minimum standard for the construction of concrete and asphalt court platforms that is required to support an acrylic **Rebound Ace Sports Coating System**.

It is highly recommended that all sports court platforms are designed by an engineer.

CONCRETE SPECIFICATION

1. Concrete Slab

- 1.1. Recommended 1% fall across a single plane to prevent water pooling
- 1.2. Minimum 25 MPa concrete
- 1.3. Steel trowel helicopter finish
- 1.4. Must cure for a minimum of 30 days

2. Additives and Curing Compounds

- 2.1. NO additives or curing compounds should be used during slab construction

3. Surface Tolerance

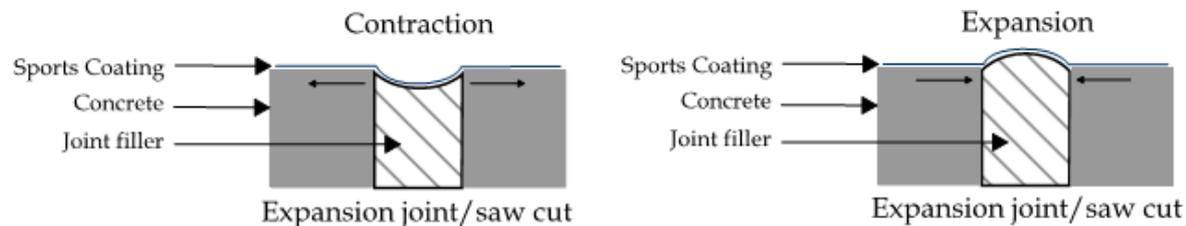
- 3.1. Allowable level tolerance to concrete surface, 3mm maximum deviation beneath a 3m straight edge, when measured in any direction

CONCRETE CONSTRUCTION INFORMATION

Expansion Joints/Saw Cuts

When pouring a concrete slab it is standard practice to include expansion joints and saw cuts throughout the slab. Joints and saw cuts will be visible after the coating has been applied, so the positioning of the joints/saw cuts should be considered to ensure they minimize the impact on the sport being played eg. Tennis court key joints should be placed under the net. Connolly or Danley key joints with **removable** capping is highly recommended. Avoid bull nosing joints that are being coated as large bull nose key joints tend to cause more fatigue on the sports coating.

The joints will be filled with a suitable polyurethane sealant. With temperature changes, when the slab expands the sealant will swell causing a lump to appear and when the slab contracts a depression will be visible. Fatigue of the sports coating may also occur along these joints, although the polyurethane is flexible the sports coating isn't, so hairline cracks may occur along these joints.



Cracks

There are products that are used to help hide and disguise cracks, however they are only reducing the appearance of the cracks. They are not fixing the fundamental problem of movement which causes the cracks. A sports coating will not fix or prevent cracking in any surface, at best it will only reduce the appearance of the crack for a period of time.

ASPHALT SPECIFICATION

1. Asphalt Mix

1.1. AC shall be in accordance with the National Association of Australia, State Road Authorities "Principles and Practice of Bituminous Surfacing, Volume 2 - Plant Mix", or equivalent

1.2. Dense Graded Mix

Nominal Size	7mm
Bitumen Content	4.5% to 6.5%
Stability	5kN
Compaction	50 blows each face
Flow	2.0mm to 4.0mm
Air Voids	3% to 7%

1.3. Place and compact AC to minimum of 30mm thickness and 95% of laboratory compaction

1.4. Recommend 1% fall across a single plane to prevent water pooling

1.5 Allowable level tolerance to AC finished surface is 3mm maximum deviation beneath a 3 metre straight edge when measured in any direction

ASPHALT CONSTRUCTION INFORMATION

Joints

Particular attention must be placed on the asphalt joints when laying the asphalt. The joints need to be flat and seamless and must be completed without creating a ridge or low lying section whilst maintaining a close, dense finish.

Ferrous Materials

When applying an acrylic sports surface it is especially important that the aggregate material in the asphalt mix is free from Ferrous materials such as mineral Pyrites and Marcasites (iron particles). The asphalt mix should also be free of wood particles, clay or other deleterious materials which may cause staining / discoloration. The presence of these particles or materials can interfere with the planarity, structural stability, aesthetics of the courts, installation of the acrylic sports surface as well as decrease the expected lifespan of the court.

Rust Stains

Certain geographical locations are more susceptible to these naturally occurring ferrous materials which cause unsightly brown stains (rust marks), blisters and pitting to appear on new acrylic surfaces. As moisture permeates through the acrylic colour surface it moistens the aggregate in the asphalt layer. The oxidation process is initiated and with time migrates to the court surface becoming evident as a rust colour. These rust spots and streaks can be merely an aesthetic issue or they can be capable of causing localised surface and base layer failures. It can take six (6) to twelve (12) months after the courts are completed for the rust stains to appear or streaks may form in the direction of the fall of the courts where the water is draining away. These rust streaks can continue to increase in number over the following twelve (12) months or more. A sports coating will not fix this issue as the stains will continue to leach through the coating.

Cracks

There are products that are used to help hide and disguise cracks, however they are only reducing the appearance of the cracks. They are not fixing the fundamental problem of movement which causes the cracks. A sports coating will not fix or prevent cracking in any surface, at best it will only reduce the appearance of the crack for a period of time.