



TENNIS VICTORIA

Acrylic Court Maintenance Guide



INTRODUCTION

Tennis Victoria produces a number of fact sheets and articles that are designed to assist tennis clubs with the maintenance and operation of their facility. The most important aspect of any tennis club (apart from the players) is the courts themselves.

This guide outlines tips and advice to keep your acrylic courts well maintained and ready for play.

Tennis Victoria can be contacted directly for more specific advice related to your facility by emailing tennisvicinfo@tennis.com.au.



CONTENTS

SECTION	PAGE NUMBER
Acrylic Surfaced Hardcourts	2
Planning	3
Maintenance costs and timings	4
Summary of maintenance timing and estimated costs	4
Tennis Victoria Infrastructure Contact List	9
Wet Conditions	9
Maintenance Equipment	9
How to reduce your maintenance needs	10
Facility condition and compliance audit	10

ACRYLIC SURFACED HARDCOURTS

Acrylic coated tennis court surfaces are popular in Australia and are known as hardcourts. The acrylic surface is comprised of 3-4 layers of acrylic resin/paint, made up of a filler/sealer coats and two top coats, installed to either an asphalt or concrete base. It can be either non-cushioned or cushioned, is suited to all levels of coaching and training and used at many tournaments around the world.

The exact performance of the acrylic surfaces differ slightly from product to product, and the subsequent usage of the surface, but can generally be described as being medium-paced with an extremely true ball bounce of medium height.

Every court surface requires regular maintenance. Not maintaining courts properly or regularly leads to a dramatically reduced lifespan resulting in ongoing costly repairs and premature resurfacing or reconstruction.

Court owners need to be aware that hard court surfaces such as asphalt and acrylic, do not last forever. While maintenance can be less, compared to other tennis court surfaces, the age and quality of the court build, and surrounding environment will influence the amount of maintenance required.

For example, if the court is constructed in a damp environment with poor drainage and large trees positioned close to the court it will require more frequent maintenance due to the likelihood of increased need for algae removal, tree limb lopping, leaf removal and additional crack repairs. Asset owners/users need to make provision for future expenses including ongoing maintenance and the ultimate re-coating of their surface to keep the courts playing at their best.

We recommend requesting and following the court construction contractor and/or acrylic manufacturer's maintenance guidelines and use the products and methodology they recommend. The contractor should be able to supply this information upon request.

PLANNING

Inspect and schedule maintenance for your courts every off season or between seasons where clubs play all year round. Ideally, the courts should be scheduled for maintenance well before each season, providing ample time to allow for the cleaning, repair works or resurfacing to be completed before the next season commences.

The process can take time; as a guide the following can be expected:

1. Inspect the courts and identify any issues, such as slippery areas, cracks, bulging or split filler in the concrete joins, trip hazards, faint line marking, weed growth, drainage issues, trees overhanging the courts and/or lights etc.
2. Write a thorough works brief for the purpose of seeking quotations for the works.
3. Seek quotations from 2-3 experienced contractors using Tennis Victoria's Infrastructure Contact List as a guide. Ensure an itemised quotation is provided, outlining exactly what the works will entail and to the standard required.
4. Engage the successful contractor to complete the works taking into account their experience, time taken to complete the works and price.
5. Allow adequate time and access for the contractor to complete the works. The contractor should outline the time required and how long the courts should not be used after the works are completed.



Contact Tennis Victoria if you need a professional facility assessment and works recommendations.

There is a level of quality that would be reasonably expected as part of a court maintenance/surfacing project and selecting suitably qualified and reputable contractors will provide greater certainty that a positive outcome will be achieved.

MAINTENANCE COSTS AND TIMINGS

Clubs and Councils should budget to have the court facility regularly maintained. A sinking fund is recommended to ensure the works can be completed when they are required. This will allow the asset owner/user to keep the court surface in optimum playing condition and maximise court lifespan. As a guide, the suggested timing of the maintenance works and the approximate costs, are:

SUMMARY OF MAINTENANCE TIMING AND ESTIMATED COSTS

FREQUENCY	ITEM	ESTIMATED COST
Weekly	Routine Inspection & Cleaning	\$0
Six months	Routine Inspection & Cleaning	\$0- \$1,500
Twelve months	Weed Control, Drainage Clearing	\$400 per court
Two years	General Supporting Infrastructure	\$800 per court
Two - three years	Court Cleaning	\$800 per court
Four - six years	Maintenance of lighting infrastructure	\$2,000 per one - three court
Seven - ten years	Court resurfacing	\$15,000 per court

WEEKLY OR AS OFTEN AS NECESSARY

NO COST - CLUB VOLUNTEERS

Courts should undergo a weekly maintenance routine to keep them in a safe and playable condition and to maximise their lifespan.

Works include:

- Remove dirt, silt, stones and leaf litter as it collects by sweeping or using a blower. These items can create abrasive wear, algae growth and delamination of the acrylic, which can greatly shorten the lifespan of the court surface.
- Remove bird and bat droppings. These are highly acidic and can eat away the acrylic surface.
- Ensure all water ponding and silt/slippery areas are removed regularly via a broom or squeegee. This is especially important prior to play commencing.
- Ensure any spills or contaminants, such as drinks are cleaned immediately.
- Do not place portable shelters, chairs or tables directly on the court surface.
- Protect the pavement perimeter by clearing dirt and leaf litter etc from drainage systems and keeping weeds and grass from growing on to the pavement areas.



If contaminants are not regularly removed, they will be embedded into the acrylic topcoat and, with prolonged use, will cause staining and premature surface wear. A non-residual liquid organic cleaner can be utilised. The percentage of cleaner to percentage of water will depend on the degree of surface contamination and should be used in accordance with the manufacturer's specifications for the particular surface type and cause of the stain. After light scrubbing, hose-off with fresh water to remove any residual cleaning agent. Contact your local authority prior to the commencement of cleaning to ensure the intended works conform to the environmental requirements in your area.

EVERY SIX MONTHS OR AS OFTEN AS NECESSARY

NO COST - CLUB VOLUNTEERS

Inspect the courts every 6 months to identify problems and issues that could be addressed and extend the lifespan of the courts.

Things to look for are:

- Slippery areas where dirt/silt sits due to ponding and algae issues
- Cracks
- Delaminating acrylic
- Pitting in the surface and/or pyrite staining
- Bulging or split filler in the concrete joins
- Trip hazards
- Faint line marking
- Weed/grass growth
- Drainage issues
- Trees overhanging the courts or lights etc.

Minor items can be completed by club volunteers, however, engage a professional for any pavement or surfacing works. See the planning section on page 3 for the process.



Hardcourts can crack as they age. Quick action to seal cracks as they appear can prevent moisture ingress through the open crack, greatly slow down the deterioration of the pavement and mitigate larger issues such as heaving and complete pavement failure.

Points to remember are:

- Only use a reputable sports court contractor or acrylic installer to repair the cracks and resurface.
- Clean the cracks and 'v' out the crack to allow the installation of the filler product.
- Only use filling and sealing products that are approved for use on sports courts - never use road base emulsion as it is tacky and can cause slip and trip hazards, especially when poorly installed.
- Ensure the repairs sit as flat as possible and blend with the surrounding court surface. They must be coated with a thin layer of nonslip acrylic sports surface so that they do not become slippery.
- Continue to monitor and repair any reopened or new cracks as they appear.
- Many cracks are of a structural nature and likely to reopen and require ongoing re-pairs. The aim of the continual repairs is to maximise the lifespan of the court and keep the court playable for longer. In this case a full rebuild/reconstruction of the court will be required for a long-term outcome.



EVERY 12 MONTHS

ALLOW \$400 PER COURT

Weed Control, Drainage Clearing

All hardcourt tennis courts are non-porous and it is critical that stormwater run-off is captured from the court surface and the surrounds and directed away from the sports court area efficiently. Water ingress to tennis court surrounds and underneath the courts can cause a shrink/swell reaction in the subgrade soil which can severely damage the pavements. Weeds can also encroach on to the playing surface and grow within cracks. This can quickly damage the court pavement and acrylic surfaces, especially where aggressive grasses are known, such as couch and kikuyu.

Works include:

- The clearing/flushing out of all drainage infrastructure - spoon drains, swale drains, agi drains, drainage pits and pipes. For example debris such as grass clippings, leaves and litter and dirt, stones etc. must be removed from drainage channels and pits to ensure the drainage system functions efficiently in rain events.
- Clean out surrounding drainage infrastructure such as earthen swales and pits along the high sides of the courts to ensure water does not empty into the court area during rain events.
- Where slotted subsurface (AGI) drains are installed to the court perimeter, inspection / flush out shafts should be visible. The subsurface drains should be flushed to ensure they are working efficiently.
- Treating and removing grass and weeds from cracks and fence lines or pavement edges.



EVERY 2 YEARS

ALLOW \$800 PER COURT

General Supporting Infrastructure

It is important that the supporting infrastructure is kept in good working order to minimise deterioration and to keep the courts safe and secure.

Items to check:

- Nets and net posts should always be kept in good working order - lubricate all moving parts (winders etc) on net posts, and nets should be free of holes and torn tapes - net repairs can be undertaken by net and mesh suppliers as needed.
- Fencing and gates should also be free of holes, curling chainmesh and loose wires. Gate hinges need to be lubricated and free moving.
- Fencing retains its shape and strength when properly fitted with supporting top and bottom rails and the required 3 strands of tensioning wires.

EVERY 2 - 3 YEARS

ALLOW \$800 PER COURT

Court Cleaning

Engage a professional to high pressure wash the court surface to remove the build-up of dirt, algae and grime and keep the court slip resistant and safe.

- Use a reputable professional court cleaner or an experienced volunteer. Inexperienced operators/ volunteers can damage the acrylic surface by using a very high-water pressure or keep it on the surface for too long.
- Wet climates, shaded courts, treed or dry surrounds can greatly increase cleaning requirements and reduce the time between cleans.
- Cleaning too often or or not often enough can result in premature wear of the acrylic surface, a balance is required.
- Cleaning can greatly reduce the risk of slipping on the courts and extend the life of your acrylic surface.

EVERY 4 - 6 YEARS

ALLOW \$2,000 PER COURT

Lighting Infrastructure Cleaning

Where lighting is installed, and reported as providing dull or patchy light, maintenance of the light fittings can greatly improve the lighting output.

Works include:

- Engaging a contractor to clean all light fitting lenses to ensure optimum light output. Works usually require a travel tower or similar to reach the height of the towers, and steps should be taken to ensure the court pavement is protected at all times.
- Trimming trees or vegetation away from the towers to prevent shadowing on the courts.
- Ensure all light fittings are working.
- Re-aim the light fittings to ensure uniform lighting across the court.

Note: The cost for cleaning of light fittings will be greater if the court surrounds are heavily treed.

EVERY 7 - 10 YEARS

ALLOW \$15,000 PER COURT

Acrylic Court Resurfacing

Works to include:

- High pressure wash the court surface.
- Grind to remove imperfections and a layer or two of old acrylic surface.
- Minor repairs to fill cracks and pavement damage.
- 2 Acrylic top-coats, note that 3 coats may be required if there is extensive pitting or very old surface.
- Re-painting of lines with a slip resistant water based acrylic line marking paint, in 50mm wide thin layers with sharp straight lines.

Note:

- Only use a reputable sports court contractor or acrylic installer to resurface and line mark.
- Use a high-quality acrylic sports surface that is fit for purpose.
- Use a textured water based acrylic line marking paint that is not slippery and will not crack or curl the pavement.
- Install line marking in thin layers to ensure the lines are consistent.
- On no account should road or oil-based paints be used for line marking.
- All lines should be taped so that they are straight, clean, and sharp.
- All lines must comply to the court dimension standard.
- A set out check is recommended to not only check the court dimensions but also to ensure the run-off dimensions are to standard (if it is possible)
- The time between re-surfacing is approximately
- 7-10 years depending on the court's usage, maintenance regime, the court surrounds, environment, and climate.
- If a cushioned acrylic has been installed, there is no need to replace the rubber component of a matt lay cushioned system as the cushioning lasts indefinitely. A basic resurface is all that is needed.
- If liquid applied rubber (wet pour) has been installed, there may be a need for additional cushion layers prior to resurfacing with the acrylic coatings. This will be at an additional cost.



TENNIS VICTORIA INFRASTRUCTURE CONTACT LIST

The Infrastructure Contact List provides contact information for court builders, contractors, suppliers and manufacturers, to assist clubs and councils with new facility development, redevelopment or resurfacing of courts, court maintenance, cleaning, lighting and ancillaries.

While inclusion on the list is not an endorsement of the services or capabilities of the companies listed, the companies included are known to have completed work within the tennis environment or those that specialise in servicing the tennis industry. Tennis Victoria recommends that those using this list conduct their own research to ensure the capability and suitability of a contractor for their specific needs or project.

[Click here to access the Tennis Victoria Infrastructure Contact List](#)

WET CONDITIONS

Well-constructed asphalt and acrylic surfaces should be free draining and slip resistant even in wet conditions. If there is ponding identified simply remove any excess water with a wide sponge roller or squeegee and play should be able to recommence immediately.



MAINTENANCE EQUIPMENT

Outdoor court maintenance equipment

- A broom and a leaf blower to remove all loose and foreign materials before play
- A hose to clean the surface as needed (spills, dirt etc). Note: engage a qualified contractor for a thorough 2-3 year clean.
- A squeegee to remove excess water from the surface, especially in ponding areas. This is a must prior to competitive play commencing and will increase the lifespan of the court surface.
- A metal or plastic spatula, or similar type of scraper to safely remove all bird and animal droppings as they occur.



HOW TO REDUCE YOUR MAINTENANCE NEEDS

- Minimise the dirt and dust on the court surface by landscaping the surrounding grounds and keeping them green and well tended.
- Do not plant trees within approximately 30 metres of the courts and never plant large or invasive species.
- Ensure tree root barriers are installed to protect the court pavement from tree root invasion and moisture changes around and under the pavement which can significantly damage the court pavement. An arborist should be engaged to provide advice for existing large or mature trees.
- Construct paths or concrete entry points at the main gate entries and wipe shoes before entering the court to prevent stones, twigs or other sharp objects being ground into the surface.
- Erect signs at the court entry points, listing the most important do's and don'ts.
- Courts subject to moist environments, heavy air-borne pollution such as dust, tree leaf litter and traffic fumes are classified as high maintenance areas.



FACILITY CONDITION AND COMPLIANCE AUDIT

If you have identified issues with your court/s it may be wise to get an expert to complete a court inspection and provide a Facility Condition and Compliance Report. This inspection and report can provide you with comprehensive information on court condition and identified issues, reasons for court failures where relevant, court and run-off measurements and short and long term works recommendations.

This information will enable you to understand the issues, seek quotes, prioritise and undertake any short-term works. It will also assist in planning and budgeting if major works are required.

Please contact Tennis Victoria for more information on Technical Advisory Services.



This guide has been written by 2MH Consulting, a provider of facility advisory services to Tennis Victoria. For more information on 2MH Consulting telephone (03) 5422 2176 or go to www.2mhconsulting.com.au