



## THE FACTS ABOUT ARTIFICIAL GREENS –

*A MODERN POINT OF VIEW*

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### INTRODUCTION:

This document, in support of artificial surfaces, is intended to clarify the discussion and assist those currently involved in the selection of artificial surfaces for Lawn Bowling clubs, by providing a perspective from those involved in the sale of such surfaces around the world on a daily basis.

### OUR CREDENTIALS:

Dales Bowls surfaces are renowned around the world. Dales artificial outdoor bowling greens are installed throughout Europe, the Americas, the Far East and Australia. In Canada, you'll find Dales artificial greens in Nova Scotia, Manitoba and BC. In fact, we are the world's leading suppliers of Lawn Bowls surfaces. Our artificial indoor bowls surfaces are used for competitions at International and Club Level. In Canada, the Pacific Indoor Lawn Bowling Club of Vancouver is powered by Dales Pro-Weave. Pacific is the only World Bowls certified indoor club in Canada. Since its inception in 2005, this club has already produced one world champion and is the venue of choice for training by world class players. We are, also, particularly proud to be the providers of the famous "Blue" Pro-Weave World Bowls Tour Indoor Championship Rink as seen on television in the UK, Australia and the Internet.



Since 1987 Dales, a company from Lincolnshire, England, has been supplying and installing a wide variety of durable, resilient, multi-functional indoor and outdoor sports surfaces that are a joy to use and easy to maintain. Dales Sports has a proud tradition of providing the finest quality products and workmanship to ensure the utmost customer satisfaction. Developed in 1988 by Verdemat, a Dales company, the MASTERGREEN™ artificial surface is today's most popular needlepunch carpet for Lawn Bowling. In fact, at the 2010 Commonwealth Games in Delhi, Lawn Bowling will be played on artificial surfaces for the first time and they will play on 8 Dales MASTERGREEN™ surfaces.

**The discussion on artificial surfaces** for sports has been going on for decades. However, this topic has finally reached the sport of Lawn Bowling in a big way, especially in the past 24 months. This year, 2009, will be remembered as a watershed year for this subject in Canada. Believe it or not this is so because of the recession. You see, to repair the recession, governments around the world provided financial stimuli to re-energize the economy. In Canada, billions were provided for the Recreational Infrastructure Program (RInC). Lawn Bowling clubs were eligible to receive 1/3 of any shovel-ready project, up to \$1M, provided they could meet the very short deadline. Although this proved too complicated for Lawn Bowling Clubs, many Parks & Rec departments all over the country applied and received millions. Since most clubs are overseen by Parks & Rec departments, many of these applications included modern new Lawn Bowling facilities or the replacement of grass greens with artificial ones. Many clubs have been asked to gather and provide information to city officials to help in the process. To ensure that the most up to date information is made available to all the stakeholders, Dales is now settled in Toronto so that it can provide a more hands on and comprehensive service to all its prospects and existing clients.

### A LITTLE KNOWLEDGE CAN BE A DANGEROUS THING:

If you are involved in artificial surfaces for discussion and/or decision making, make sure your information is current. Dated information gathered over the years is good experience and can make for good conversation but it can also be a dangerous thing if it is not current. Any information older than 2 years should be rechecked and updated. When possible, view artificial green installations with your own eyes. Appreciate local support. Manufacturers are constantly making adjustments to their products in search of the perfect base and the perfect green. It is in this spirit that the following information is provided.

## **EVOLUTION OF ARTIFICIAL SURFACES FOR LAWN BOWLING:**

Materials for synthetic Lawn Bowling surfaces have evolved considerably over the years. A lot of mistakes were made in the early years. For example, materials were not UV stabilized, green speeds were too fast and play overlapped 2 greens, too much maintenance was still required, some materials caused damage to the bowls (sand scratched the bowls), the play did not feel like on normal greens, laser levelling was not yet available, and drainage techniques were expensive experiments. In effect, back then the decision to go green was a real adventure.

In recent years, MASTERGREEN™, a new needlepunch surface made with UV Stabilized polypropylene fibre was produced and distributed by Dales Bowls. This advancement revolutionized the business of artificial surfaces for Lawn Bowling. Imitated (to some extent) by others, this type of surface is now the most popular in the world.

## **COMPARING THE ALTERNATIVES:**

### **SAND-FILLED:**

Until 2 years ago, sand-filled carpets, popular in Australia, have been an effective solution. They were still better than grass. Laid diagonally, where the seams are glued together, sand-filled carpets provide a nice smooth appearance. At first, this seemed like a good idea because players can play from all sides and bowls are not affected by the seams. However, after a while, many installations, in hot climates, experienced "tenting". This was caused by carpet expansion in the heat, air getting in underneath (blowing) and making the carpet rise, creating a "tenting" effect.

Sand-filled carpets require maintenance such as watering and sand to keep them "perky", thus defeating one of the main reasons to switch to artificial, in the first place. This type of maintenance has to be done by club volunteers because city greenskeepers only deal with real grass. Of course there is no cutting and rolling, no pesticides and no environmental issues.

Because sand is used in the maintenance process, some installations look less than well finished. For example, clubs still have sand ditches. What a nuisance in the morning/evening dew or after a rain. I thought that one of the objectives of artificial surfaces was to have a dirt-free environment with no sand in sight and no maintenance.



**James Gardens LBC in Toronto: 2 year old Pro Master artificial green still uses sand ditches.**

Unfortunately, "although the medicine may be effective, the side effects can kill the patient." The side effects to which I refer are: sand and draw arc. The sand scratches the bowls although pushers create damage also. The wide draw of the greens, where a player needs to send his bowls into the next green in order to play, causes clubs to use only 7 of 8 rinks to accommodate this fact. Furthermore, it is too much to expect current bowlers, especially older ones, to adapt to such wide greens and it, certainly, is not fair to expect these same bowlers to replace their expensive bowls to accommodate play on an artificial green. Although some have said that it is easy to adjust to the wide greens and that the cost of new bowls (\$500) is a mere pittance in comparison to other sports, I have found through personal experience that these are "deal killers". Many players, including tournament players just refuse to play on this surface.

Given that the sport of Lawn Bowling is in such decline everywhere, especially in Canada, it is not a good idea to cast these recalcitrant players aside. We need to make it as easy as possible for

everyone to enjoy the game. For example, in Maple Ridge, BC, a sand-filled carpet was installed in 2003. Many bowlers in the Vancouver area went to try it. Many never returned. The wide draw arc and the scratched bowls were too much. The club had to replace this sand-filled carpet. **Modern needlepunch artificial Lawn Bowling surfaces do not need to produce the wide draw arc effect.** At installation, the speed of needlepunch carpets can be adjusted to any speed. The Maple Ridge club chose a needlepunch carpet, which was set-up to play like a grass green with a medium green speed between 12 and 14 seconds. Now everyone loves it. No more wide greens, no more scratches, no maintenance except for the occasional vacuuming. Soon after, the neighbouring White Rock Lawn Bowling Club replaced its 75 year old grass green with Dales' MASTERGREEN™ needlepunch carpet.

Everyone is switching to needlepunch. In Australia, ABS Surfaces is the official installer of Dales Australia. Although they still install some sand-filled carpets because of their lower start-up cost, ABS Surfaces now installs mostly Dales needlepunch carpets – one per week, in fact.

In California, world class bowls Champion, Phil Dunn, has just installed a Dales needlepunch carpet on his estate. Inevitably, more will come.

**NEEDLEPUNCH:**

With a needlepunch carpet you only have the usual, sought after benefits of an artificial surface and none of the side effects: a perfect green every day of the year, where it's easy to play and play well, where the surface is perfectly level and where the greens volunteers can practically retire. When running at 12-14 seconds the Dales MASTERGREEN™ plays like natural grass. No special playing adjustments are required other than it feels easier when throwing the bowl because it is a true 12-14 second speed. Dales' polypropylene needlepunch carpet is designed to withstand extreme temperature from Australia to Manitoba. In these extreme climates, the base is where the focus needs to be.

The Dales installation method in Canada is as important as the carpet. Dales utilizes a porous Elastic Layer ("the rubber") to top off its base work, instead of cement. It cannot crack and can be rolled if necessary. The E-Layer is a combination of recycled tire chips and epoxy. Mixed on site, this looks like laying down asphalt. This helps to cushion the impact of "lobbers" and softens the strain on joints during long tournaments.



The secret to a great needlepunch installation is in the drainage package. Invest in a new civil engineering analysis so that the installers can provide the optimum drainage set-up. A Dales MASTERGREEN™ will drain in 20 minutes after a rain storm. You can view a complete Dales Canadian installation at [www.dalesbowlscanada.ca](http://www.dalesbowlscanada.ca). Dales will not install its MASTERGREEN™ carpet unless the site prep is suitable. This is why Dales offers a complete turnkey package.



## **ABOUT THE MASTERGREEN™ SURFACE:**

Experience gained from dealing with artificial outdoor greens since the first UK green in 1976 led to the development of MASTERGREEN™ by Verdemat in 1988 as the ultimate outdoor bowling surface. Today, Verdemat is a Dales company.

The MASTERGREEN™ is a fibre bonded material made from specially selected UV and colour stabilised polypropylene fibres. The construction incorporates a tough, dimensionally stable fabric. Use of low glare polypropylene fibre provides a luxurious, non abrasive surface which does not damage bowls.

The Strong, Reliable and Constant MASTERGREEN™ "County" green is a completely homogeneous surface which does not have a continuous pile which may collapse in time. The manufacturing method makes it dimensionally stable and totally omni-directional. It has not been found necessary to carry out annual retensioning of MASTERGREEN™ surfaces.

Speed on an artificial surface is controlled by the thickness of the underlay. Dales recommend a 13-14 seconds green speed, in order to achieve the feel and play of natural grass. However, speed can be adjusted as per your requirements.

## **ABOUT THE PRO-WEAVE WOVEN SURFACE FOR INDOOR CLUBS:**

Manufactured, in England, exclusively for Dales, from 100% polypropylene incorporated into a semi-worsted yarn utilizing specially selected high quality coarse and fine denier fibres, Pro-Weave is installed over laser levelled floors. This improved yarn provides a tighter weave with reduced elasticity, resulting in excellent and consistent bowling characteristics.

- High quality selvages for seams that are stronger and last longer.
- Surface colour and texture designed to improve on the cold, dull appearance found on competitive surfaces.
- Can be laid over different underlays to provide characteristics to meet your requirements. The rubber crumb underlays currently used are Duralay Gold and Duralay Extra Gold but other options are available if slower green speeds are required. Our surfaces have been fully tested on the various underlays to enable us to assess performance. Normally we recommend a green speed of 17-17.5 seconds to meet the needs of the majority of indoor bowlers.
- Available in widths up to 4.6m (15'1").

## **GREEN SPEED:**

Officially, speeds under 12 seconds are considered slow, 12 to 16 are considered medium and those 17 + are considered fast. In Australia, where they like really fast greens, Dales installations run in the 16-18 range. Although some consider green speeds of 12-14 seconds to be fast, at these speeds, greens feel the most like a good natural grass green surface and are rated as medium speed. This explains why recreational bowlers, older players, elite bowlers and visitors like this speed. It does not require any adjustment to their game. It just makes it better. It takes a lot of hard work to achieve and maintain a 12-14 second speed on natural grass. Most run slower.

Green speed is important, to be sure. It affects all aspects of play. With the use of artificial surfaces, especially needlepunch carpets, we can control the speed of the green and achieve a uniform performance; thus, creating the proverbial "even playing field for everyone".

The subject of green speed is an amusing one. Most players, including world champions cannot tell the exact speed of a carpet by observation alone. We have tested this. Yet, green speed remains a hot topic of conversation among skilled players, especially when they are not having a great day. To help me shed some real technical light on this topic, I have invited Macka Jensen, renowned Australian coach, to share his knowledge with us. He has developed many unique coaching and training methods including his "GT for lawn bowls" - the "[Gyrostatic Delivery Technique](#)". Macka hopes that through his company Performance Lawn Bowls, he will have the opportunity to share his State of the Art ideas throughout the bowls community. Here is what he says on the subject of green speed as quoted from his website [www.performancelawnbowls.com](http://www.performancelawnbowls.com) .

### **THE SPEED OF THE GREEN:**

*"Many bowlers become obsessed by the speed of the green and mentally find it difficult when the green speed does not suit what they believe is their ideal performance condition. This mental obsession for many is the result of poor training methods because their training and game skills are wrongly focused on the outcome of success, rather than the actual process of how to handle the relevant speed of the green. If their training program is aligned to the skill process, then the bowler will rise to the challenge irrespective of the conditions.*

#### **SLOW GREENS: (Approximately 8 to 11 seconds, or slower)**

*On slow or holding greens most bowlers become exponents of on-shots, this is marked by a rapid increase in magnitude by their increased delivery speed to reach the head. Bowlers who do not normally play on-shots perform with an increased target strike rate with uncontrolled impact force. There is an overwhelming tendency to play short and medium ends and many untrained team members deliver every on-shot at the one delivery speed. Failure to control these aspects of the delivery can become critical to the tactical deployment and dispersion of bowls within the head, negligence of training will gradually eventuate into very much a pot luck situation.*

#### **MEDIUM PACE GREENS: (Approximately 12 to 16 seconds)**

*Medium pace greens possibly give the best conditions for on-shots. These conditions also suit the physical ability of most trained bowlers. Slow greens require greater body exertion, medium pace greens require a smooth delivery and fast greens require a delicate delivery action all of which is in the control of most bowlers.*

**Advantage.** *Whatever the playing standard of the bowler, most will perform at their best on this pace green.*

**Disadvantages.** *Throughout the day or evening, if the green speeds change, most bowlers who are not trained how to detect and handle slow or fast greens will experience periods of very poor performance.*

#### **FAST GREENS: (Approximately 17 to 21 seconds or more)**

*On fast greens it is essential that alignment and timing be maintained to the highest degree. Lack of thoroughness within the follow-through action and failure to see and check the eye, hand and aiming point alignment at its completion will only lead to the bowler missing the target. The characteristics of fast greens are, the strike rate slightly decreases and the impact force is less controllable."*

We can all study this subject in complete detail on Macka's website where he invites your comments. This is probably not the last word on the subject but it will enable those who like to discuss green speed to do it more authoritatively with state of the art information.

### **AUSTRALIA AS A BENCHMARK:**

Australia is by far the most advanced country in the world of Lawn Bowling. It is as if they are on another planet. Their provincial organizations are extremely productive. They provide their member clubs and schools with incredible marketing research and support tools. These include bowls curriculums and teachers' lesson plans, comprehensive "How to" manuals for club administrators, complete with sample advertizing and forms for just about anything. Every club can run like a well oiled company. There are no excuses. Mind you, these clubs have to be well run. They are huge country clubs with 6-8 greens, huge clubhouses with restaurant and bars ready to accommodate the huge number of members and people who play the game. In fact, over 500,000 people play the game. Of these about half are members of a club. It's practically a national sport. In Australia, bowls is a popular family sport. Everyone plays, including the little kids. Forgot your special shoes or don't have any? No problem. Barefoot is fine.

Unfortunately, even Lawn Bowling heaven has issues. Drought conditions have forced the government to control watering. Maintaining the greens in tournament condition in these large clubs will soon be a thing of the past. Australian studies show that it takes 700,000 gallons of water per green to keep it in top shape. To solve this problem, the Australian government has instituted a grant program to assist all the clubs in replacing their natural grass with artificial surfaces. During the past three years, Dales Australia has succeeded in making its MASTERGREEN™ carpet the product of choice for Lawn Bowling clubs. Aussies like fast greens with speeds of 16-18 seconds. For more than 2 years, Dales' installers, ABS Surfaces, have been installing one Dales MASTERGREEN™ carpet per week, more than any other kind. The sport in Australia is now referred to just as BOWLS. They soon won't play on grass anymore. You can find

a lot of the Australian Bowls info on my [www.dalesbowlscanada.ca](http://www.dalesbowlscanada.ca) website. We can learn a lot from them. It is hoped that the Recreational Infrastructure Canada Program (RInC) will achieve similar results.

## **CONCLUSION:**

In conclusion, when considering an artificial surface option, do your homework. Get up-to-date information. It is possible to please everyone. If you select the correct surface, you will have no learning curve for anyone. For this, Dales recommends its MASTERGREEN™ carpet with a MEDIUM speed of 13-14 seconds. There will be no wide draw arc, no sand and the least maintenance of all. As a result, your entire membership will be happy, the skill levels will rise and championships will accrue to your club. []

### **BOWLS AT COMMONWEALTH GAMES 2010 IN DELHI TO BE POWERED BY DALES MASTERGREEN™**

**I WILL BE PLEASED TO DISCUSS OR DEBATE THIS SUBJECT AND MY "BOWLS RENAISSANCE" AT YOUR NEXT EXECUTIVE MEETING AND/OR AT YOUR NEXT AGM. IN THE MEANTIME, I INVITE YOU TO MEET ME ON MY CANADIAN WEBSITE AT [WWW.DALESBOWLSCANADA.CA](http://WWW.DALESBOWLSCANADA.CA) , WHICH WAS DESIGNED FOR THOSE OF US INVOLVED IN DEVELOPING THE GAME OF BOWLS. YOU CAN ALSO VISIT DALES CORPORATE WEBSITE AT [WWW.DALESBOWLS.CO.UK](http://WWW.DALESBOWLS.CO.UK) .**

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