# Descol, the basis for top performance

**Athletes want to win, just like Descol. That is why Descol develops, produces and installs sports floors that outperform all other floors by far. The name? Pulastic®. An extraordinary range of sports floors, favoured by athletes around the world. And rightly so. With Pulastic®, market leader Descol repeatedly provides the basis for top performance, and has been doing so since 1965.**

### Everything under one roof

Descol, based in Deventer, the Netherlands, is an innovative organisation providing a range of services. From research to development, from production to installation, and from service to consultancy and after-sales. Descol's expert staff of more than 75 ensure that the company stays ahead in its field and expands its competitive advantage. Its expertise, skills and many years of practical experience enable Descol to deliver top quality products and services with true added value for every customer.

### The Number 1 in sports floors

Descol's worldwide distribution network spans more than 60 countries. The distributors' installation teams are trained by Descol's experts. This way, Descol is able to guarantee that Pulastic® sports floors anywhere in the world are synonymous for top quality, long life cycles, top performance, minimised sports injuries and versatile applicability. To date, Descol has installed more than 25 million $m^2$ of Pulastic® sports floors at over 50,000 locations. This is the ultimate proof that we are Number 1.

### The strength of parent company Sika

Descol is part of the Swiss Sika AG concern, a global company with more than 12,000 employees in 106 production and marketing facilities in 72 countries. Sika is a versatile multinational company, specialising in chemical applications in construction and industry. Sika AG, established in 1910, is an independent family firm, listed on the Swiss Stock Exchange (SWX). Many of the shares are still owned by its founders.

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Descol sports surfaces magazine

# challenges

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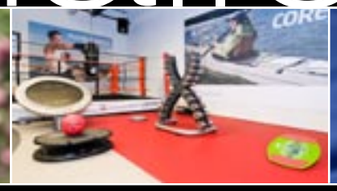
The undisputed no. 1 on the worldwide wheelchair tennis ranking, wants to make the most of life. An inspiring interview. Page 16



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# introduction

**Remo van der Wilt, General Manager**

**Descol accepts the challenge!**

Accepting challenges, pushing back frontiers, and getting even better working as a team: that was my answer to the question about my stance in life, during my job interview in 1995. It turned out that those ambitions fitted this great company perfectly. Because Descol performs every day like a true top athlete. We take our responsibilities, we are open and reliable, and we admit that we don't like to lose, because we are always passionate and fully committed. Learning and starting again, showing character and being a true professional...
it is the mentality of a top athlete that has made Descol the successful company it has been for many years.

Our line of sports challenges us every day to be the market leader in the field of seamless sports floors with our Pulastic® range. We work hard every day to create better performing floors in a sustainable and socially responsible way. In doing so, we try to outperform ourselves all the time, to provide the right solutions that match your budget, and to offer a wider range of sports floors and services. This is what we do as a team. Together with athletes, coaches and managers of sports facilities. But also with architects, resellers, contractors, partners and of course our staff!

Descol is part of the global Sika Group. For us, this means greater financial security, very high ethical standards and values, and access to an enormous knowledge base. Sustainable and socially responsible entrepreneurship constitute key values of the Sika Group.
We feel at home with Sika and it is my challenge to make sure you feel at home with Descol just as much. A good home provides confidence, a helping hand and positive energy. All basic requirements for top performance!

In this issue of Challenges we would like to present Descol and our extensive range of Pulastic® sports floors. If you have any questions or wish to discuss the many possibilities that Descol offers, please contact any of the consultants in our global network. We will help you with advice and assistance that really make a difference. We gladly accept your challenges!

Remo van der Wilt, General Manager


## Colophon

**Challenges is a one-off publication, targeted at suppliers, partners and customers of Descol sports surfaces in Deventer.**
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PULASTIC®

# considerations

10 steps towards a successful investment

## This is how you choose the right sports floor

**Selecting the right sports floor** is one of the most important aspects of designing a sports facility. After all, the ‘covered playing field’ is the primary reason for building the facility and is literally the basis of all scheduled activities. Descol gladly offers its 45 years of experience in sports flooring. This issue of Challenges provides an overview of the 10 essential considerations that every investor in sports floors should make in order to make a well-considered choice.

**Descol’s experience** With more than 25 million square meters of sports floors installed, there is a great chance that one of them was a facility like yours.
Nearby, wherever you are. New, 5 years old or 25 years old. Floors with or without floor heating, point-elastic, mix-elastic, area-elastic or combi-elastic. A primary school, a public, multifunctional building or in higher education, a professional training facility or stadium, military facilities, fitness clubs, athletics, tennis or roller-skating halls. Privately or publicly owned, athletic or auxiliary room. If your specific situation requires a tailor-made solution, Descol will gladly take up the challenge. Just discuss it with the Descol experts. A small investment in time with a great impact.

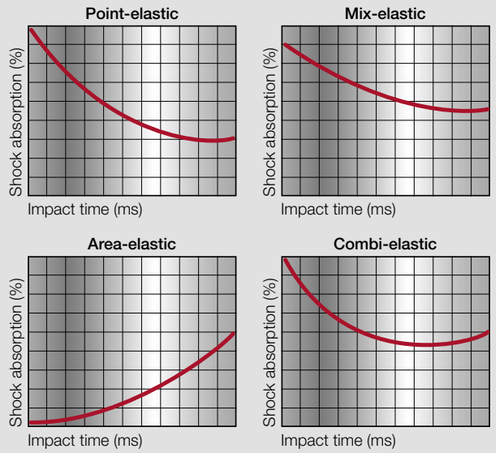
# considerations



**List of requirements** First make a clear list of requirements. The right floor for an Olympic event is not necessarily the ideal floor for a multifunctional hall. Primary school children playing have different needs than top athletes. There may be specific dominant requirements, such as the use of spikes, roller skates, regular pop concerts, or exhibitions. In the case of such issues, it is important to think logically about the performance level that is required, before proceeding to the product properties.

Designers should make careful reference to the objectives of the project to ensure that sports floors are correctly specified for their intended use.

**Scorecard for a clear understanding** It is important to understand well what specified product properties can actually do for you. When this is clear, the various floor performance aspects must be prioritised. What is really important in your specific situation? Is there a single dominant aspect - whether that be shock absorption or purchase price - that truly precedes everything else? Usually, this will not be the case and the best choice is a set of good scores for various aspects. It is recommendable to create a scorecard weighing the various aspects and providing the best overall picture. Descol consultants will be happy to assist.



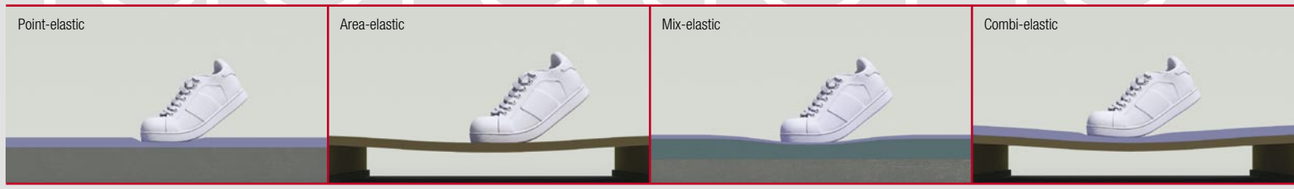

The line indicates the course of shock absorption levels over time in the case of impact on the floor. Point-elastic floors show an immediate high shock absorption level, which decreases as impact increases, while area-elastic floors show the opposite characteristics. Mix-elastic and combi-elastic floors are intermediate options, which aim for optimisation.

## 1. Safety

Users of indoor sports facilities expect that everything has been done to guarantee safety. Athletes and coaches expect optimum injury prevention measures. Parents and insurance companies expect protection in the case of accidents. Unfortunately, sports can be the cause of a wide variety of injuries. A good sports floor may contribute considerably to minimising injuries. Injuries may be the result of an unexpected major impact on the body in the case of a fall, which may be caused by a slippery floor. Equally hazardous is twisting a joint, which may be caused by a high friction floor. What is needed, is a resilient floor with a surface that meets the delicate skid resistance requirements for controlled sporting. A floor that contributes to the prevention of acute injuries (or trauma).

Less easily recognisable are injuries that develop over time. In biomechanical science, this is called wear by repetitive microtrauma. What causes it? The human body needs a few milli-seconds to respond to impact. This is the time it takes for the nerves to send a signal to the brain, which converts the signal into an instruction to the muscles to process the impact. During this time, joints are unprotected and the impact - however small – may cause damage. Many such instances of minor damage together eventually lead to wear. An important difference for athletes is that most traumas can be successfully treated, enabling them to be 'back on the floor' again soon. Wear usually means the end of a sports career at the highest level, and unfortunately almost always causes physical complaints in normal life. It may be clear that a floor must not only provide adequate shock-absorbing properties, but also respond very quickly to dynamic impact. This is particularly important for children, whose joints, skeleton and tendons are still developing.

**Shock absorption** Shock absorption is a product characteristic that indicates the maximum impact that a sports floor is able to absorb in the case of a defined load, compared to a concrete floor. This capacity is measured using a so-called Artificial Athlete. This method says nothing about the speed with which a floor responds. To understand how this works, we need to look at the type of floor construction. The drawings simply state what is meant by a point-elastic, mix-elastic, area-elastic and combi-elastic sports floor.




**Skin burns** A common type of injury, not often mentioned, is skin burns caused by sliding across the floor. A floor with a high percentage of natural raw materials, good heat conducting properties and a slightly structured surface (smaller contact area) offers the best protection in this case. Pulastic® sports floors have all those properties.

## 2. Comfort

Comfort relates to the well-being that people experience. A high level of comfort is often not experienced very consciously, but a low level of comfort is immediately clear. It is therefore important to think carefully about the desired level and to be well aware of any undesirable aspects. A number of product characteristics will be described below.

**Vertical deformation** A floor that feels hard, is experienced as unpleasant. Great vertical deformation under stress, results in long delays of reaction forces from the subfloor. Floors with high shock absorption capabilities also show great vertical deformation under dynamic loads. In the case of area-elastic constructions, a minimum vertical deformation level must be achieved to prevent the floor from being experienced as hard and avoid vibration. In the case of point-elastic floors, deformation must be limited to some extent in order to prevent the feeling of sinking and blocking feet while turning. Combi- and mix-elastic floors were developed primarily to achieve a perfect balance between shock absorption and vertical deformation.

**Soundproofing** Nobody enjoys being in a noisy environment. Reflected sound disturbs. Dealing with the cause is always a good start and prevents the generation of noise that can be reflected. Absorbing the contact sounds of running athletes and bouncing basketballs, requires a degree of point-elasticity and a limited surface hardness of the floor. The point-elastic Pulastic® systems with a synthetic top layer and elastic sublayer, offer the best performance. Combi-elastic floors perform better than purely area-elastic systems in this area, in particular if they have a hard top layer.

**Thermal insulation** Cold floors are unpleasant, especially if the sports floor is touched with bare feet, which is not unusual when teaching sports to young children. Also in the case of exercises on the floor, rising cold can be experienced as unpleasant and may have a negative effect on muscle performance. The elastic sublayer of Pulastic® sports floors, which contains large quantities of air cavities, offers adequate insulation against rising cold. In areas that require even higher levels of comfort, Pulastic® systems can be combined with underfloor heating.

## 3. Sports functionality

Multifunctional sports facilities are created to enable as many users as possible to exercise in a safe and sensible way. Standards for multifunctional floors not only specify safety and comfort levels, but also a number of other aspects that are relevant for a wide range of users.

**Uniformity** Biomechanical research has shown that one needs about three steps to get used to a floor's behaviour. Think, for example, of the sense of instability experienced when stepping from hard pavement onto a soft beach. This means that in the case of an athlete who moves actively in all directions, a floor needs to have very consistent properties in order to get truly used to it. This is necessary to prevent the athlete from paying consciously or subconsciously attention to the floor's behaviour, with the resultant of loss of concentration. A uniform bounce ensures that basketball players, when dribbling, are able to concentrate fully on other players, knowing that the ball will bounce back to the hand. Uniform shock absorption prevents injuries, as the body is better able to deal with physical strain (fewer microtraumas). Consistent and effective movements are only possible on floors with uniform friction properties, which provide a sense of confidence and again decrease the risk of injuries. Seamless Pulastic® sports floors offer the best possible results in terms of uniformity of properties. Point-elastic systems achieve the highest scores in this field.

# considerations



**Ball behaviour** Ball behaviour must be related to the game. As stated above, it is important for a basketball player that the ball bounces the same way everywhere. For optimal performance, however, a minimum bounce is required when using a standard basketball. In sports floor standards, ball bouncing characteristics of a sports floor are compared to those of a concrete floor. Football players primarily want a floor to be level and the ball's rolling behaviour to be unaffected. A fast tennis court allows balls to penetrate deeply and promotes baseline play, a slower court provides a greater spin effect, offering possibilities for forcing an opponent to move forward. Fast or slow is therefore not synonymous with good or bad, but a qualification relating to the type of game.

**Glare** Ball games are confined by lines that demarcate the playing field. It is therefore crucial that such lines are clearly visible from anywhere on the floor. A matt floor minimises distracting reflections. An important advantage is that greater use can be made of natural daylight. This increases the level of comfort and reduces energy cost relating to artificial lighting.
In this area, Pulastic® sports floors set the standard in the world.

## 4. Life span

Activity results in traces of usage and wear. The degree to which this occurs, depends on the floor's resistance to various types of loads. The European standard for sports floors tests floors under loads typical for sports facilities. The article on standards (pages 18 and 19) gives more detailed information on resistance to wear and against static loads, rolling loads and dynamic (impact) loads. In addition to these aspects, it is important that a floor resists discolouration by daylight (UV resistance) and retains its dimensions when temperatures and humidity levels change. Floors that need to be cleaned with fluids, must be insensitive to stationary water on the floor. Water should not penetrate the floor structure, for example through seams, resulting in unhygienic moulding. A floor without leaks offers greater security. Seamless polyurethane floors offer unequalled life span performance. Pulastic® has proven this more than any other floor.

## 5. Sustainable purchasing

The world is becoming increasingly aware that we have our planet on loan for future generations. Sustainable enterprising means that a company carries out its activities in such a way that creates no negative effects for the generations to come. Pages 14 and 15 describe Descol's vision and strategy for accomplishing this mission. In terms of product properties, suppliers can be assessed on the the following, for example:

| | |
|---|---|
| People: | fire behaviour, emission of solvents during installation, emission of hazardous substances during the product life cycle |
| Planet: | use of recycled materials (post consumer, post manufacturing), life span, impact on energy demand (maintenance, lighting, climate control), recyclability of a product, waste after use |
| Production: | environmental policies, environmental reporting, environmental care system, R&D policy, purchasing policy, energy balance, limiting waste, safety certification |

## 6. Quality assurance

Being sure you are actually getting what you think you bought… it should not be difficult, but regrettably it often is. Fortunately, there are various independent and expert agencies who provide certification. Firstly, there are the audits based on national (NOC*NSF, DIN, AFNOR, BS, ASTM, etc.) and international (EN, ISO, etc.) standards. It is important to ensure that the system that is selected, fully meets the standard, not only in parts. Then there are the accreditations by national and international sports federations. Descol offers a wide range of Pulastic® sports floors that are fully compliant with EN 14904 and accredited by FIVB, FIBA, IHF and BWF.

Descol applies a quality assurance system for the development, manufacturing and installation of sports floor systems which complies with the ISO-9001 standard. Descol is subject to a continuous control process by KEMA, to ensure that its products and services meet the requirements and specifications. This way, Descol meets the PMC (Product Manufacturing Control) requirements specified by EN 14904.

In its own Pulastic® Academy, Descol annually trains a large number of consultants and technicians. By transferring this know-how, both at the Deventer location and on the jobsite, Descol ensures that Pulastic® floors around the world meet the same high quality standards.

A thorough analysis of all applicable certifications, quality policies and practical implementation of such policies verified with reference studies, provides you with the best insight in what to expect from your sports floor. This goes far beyond the warranty offered. After all, prevention is better than cure. When assessing warranties - in particular the so-called insured warranties - it is necessary to closely look at the small print. Descol's advice is to not only look at the duration of the warranty offered, but to find out exactly what is being warranted. Descol offers various warranty options, adapted to your specific needs. Pages 22 and 23 describe the maintenance programmes available from Descol to ensure that your sports floor continues to perform at the desired level.

Similar programs may be available with the Pulastic® distributor in your country. Please inquire there for local possibillities.

## 7. Aesthetics

It is easy to get used to something beautiful, something ugly remains an eyesore. To be honest, we sometimes forget that. We see too many beautiful floors. Creating the right ambiance, is a specialist job and the floor is part of that. Often, much time, effort and creativity is invested in creating the right look and feel of a facility. Drawings, simulations and images of previous projects may give a good general impression of a design. In practice, however, certain details may become a nuisance, in particular after years of usage. The selection of building materials is important to correctly assess the right aesthetics and in particular how to preserve these. After all, the opening festivities usually only last one day.

**"Wood is often associated with a natural experience, but that does not mean that it needs to be on the floor." Photo: Clubsportive Haarlem, NL.**

# considerations



**Seamless** A seamless floor is and stays attractive. No distracting (open) seams, no loose fits along walls and floor facilities, completely uniform colours, no major visual deviations after repairs. Ask yourself the question what is the advantage of having seams? Pulastic® floors simply remain attractive and have been developed for intensive use.

**Colours** To meet the demands of a specific ambiance, the Pulastic® range offers a variety of colour options. Firstly the traditional user-friendly Classic Colours which have widely proven their applicability. For a more individualistic environment, a choice can be made from the range of Design Colours. In the case of highly specific requirements, Descol offers the possibility of creating a Custom Colour, discussing with you exactly which colour you need for your project. Seamless floors are relatively easy to create in combined colours. Examples include a dark green tennis court with a light-coloured perimeter around it, or a light blue volleyball field with an ochre border. We can also create circles and basketball keys in different contrasting colours. Please feel free to ask for advice when selecting the right colour.

**Line marking** Each sports floor is provided with line marking. Additionally, logos can be supplied. Again, the floor needs to stay attractive, not only looking spectacular during the opening ceremony. The best guarantee is to use line marking materials that are identical to the floor material. Almost all line marking products are polyurethane-based - a very strong, elastic and wear-resistant synthetic material. The same material that is used to manufacture Descol's Pulastic® sports floors. A better match between line marking and floor is not possible, and the life span of line markings is unsurpassed.

## 8. References

Who went there before you? How important is an Olympic record for a primary school? How important is military experience for a professional competition arena? Descol prefers to give references of projects that are similar to yours. We have both old and new references around the world - both in the public and the private sector - in the following areas:

| | | |
|---|---|---|
| 1) | Education | primary, secondary, higher and university |
| 2) | Multifunctional | leisure, competition, pro competition and military facilities |
| 3) | Specific | track and field, tennis, fitness, roller skating |

For references see pages 34 and 35.

For special applications, please contact a Descol consultant, who can tell you more about unique experiences, for example on board cruise ships and oil rigs. Descol never avoids interesting challenges.

## 9. Service departments

Manufacturers and suppliers who believe in quality, realise that obligations extend far beyond supplying a good product. The moment when a floor is chosen for a sports facility, marks the beginning of a long-term relationship. A relationship that affects the way a facility manager works. Descol takes its obligations serious and helps project developers and architects draw up the correct specifications. The same goes for contractors who need technical advice to ensure a proper, timely and faultless construction process. After delivery, Descol offers various options for maintenance and repairs.

This can be done on demand or using any of a variety of maintenance contracts. See pages 22 and 23 for more information.

Similar programs may be available with the Pulastic® distributor in your country. Please inquire there for local possibillities.

## 10. Financial management

The question "How much is that going to cost me?" is often just answered by stating the required investment. Of course it is important to know how much money needs to be invested to ensure the required performance level for all aspects described above. In particular during the planning phase, a solid budget needs to be drawn up to avoid any unpleasant surprises or last-minute cuts or overrun budgets. Cutbacks at a late stage during the construction phase always affect the quality of the finished product, something you experience most in daily use.

This article started with the statement that having a 'covered playing field' is the reason for building a sports facility, so any cutbacks on the sports floor affects the very essence of the investment. So it is important to draw up an accurate specification and have a matching budget.
The costs of the floor can only be determined by looking at all expenses across the entire expected life of the building. This includes depreciation, interest, daily and periodic maintenance, renovation, replacement and risks (insurance).

Apart from costs, income is also important. How many hours of use does the investment offer; after all, every hour represents a certain value. This includes not only the hours of sports, but also - to a significant extent - the rental income from events. A multifunctional floor with minimum downtime for maintenance, guarantees maximum returns. This is the main basis for Pulastic's® worldwide success … winning results!

# partners

## Our partners

Descol has valued partners around the world, including testing and research institutes and sports federations. Testing institutes continuously monitor the quality of our floors, while sports federations further deal with the interests of the sports, both domestic and international.

Internationally, Descol works closely together with institutes like IST, University of Gent, NBI, FMPA and Labosport. At the national level, ISA Sport is an important partner. ISA Sport supports Descol's Research & Development department in the technical development of sports floors.
Through its distribution network, Descol has contacts with local sports federations. For more information, please contact our local distributors.

KEMA

CERTIFICAAT

B.V. Descol Kunststof Chemie

ISO 9001:2000
ISO 14001:2004

**FIVB**
The FIVB governs, manages and communicates all forms of Volleyball and Beach Volleyball worldwide. It aims to develop Volleyball as a major world media and entertainment sport through world-class planning and organisation of competitions, marketing and promotional activities. The FIVB is part of the Olympic Movement, contributing to the success of the Olympic Games.

**FIBA**
FIBA, or Fédération Internationale de Basketball, is the international governing body for all basketball federations. FIBA establishes the Official Basketball Rules, the specifications for equipment and facilities, regulates the transfer of players from one country to another and controls and governs the appointment of international referees. More than 200 national sports federations are members of FIBA.

**IHF**
The International Handball Federation (IHF) is a non-profit legal entity recognised by the International Olympic Committee as the sole representative of international handball. The IHF shall lead, develop and promote handball around the world.

**BWF**
The Badminton World Federation (BWF) is the governing body for the sport of badminton The BWF is empowered by the 164 member National Badminton Federations, the IOC and National Olympic Committees to govern the sport of badminton.

**ITF**
The objective of the International Tennis Federation is to develop the sport worldwide, by concentrating on the following: administration and rules, organising international competitions, structuring the game through international circuits and events, a worldwide development programme and promoting the game.

**IAKS**
The IAKS is the No. 1 contact when it comes to the design, construction, equipping and maintenance of sports facilities and sports-oriented leisure facilities. The IAKS contributes to the creation of functional, cost-effective and environment-friendly sports and leisure facilities.

**KEMA**
KEMA is an independent knowledge leader and a global provider of high-quality services to the energy value chain, specializing in business & technical consultancy, operational support, measurements & inspection and testing & certification. Technical innovation lies at the heart of much of what they do. As an independent organisation, KEMA supports both suppliers and end users of electricity and other types of energy.

**ISA**
ISA Sport is an independent research organisation. It carries out continuous research for example in synthetic tracks that allow even faster times to be clocked, and into sports centres that consume less energy. ISA Sport also provides expert advice in the areas of feasibility, location, usability, expected running costs, equipment and the use of (building) materials.

On friendly terms with our environment

# Descol promotes a sustainable balance between people and environment

**Caring for the environment concerns us all.** We can no longer close our eyes for the effects of man on global climate and the living environment of human beings, animals and plants. Sustainable entrepreneurship is more important than ever, in particular at Descol. “Unlike any other in the industry, we take care for the environment serious in anything we do,” says Bas Logister, EQHS Manager at Descol. “We have a responsibility and we are not afraid to take it.”

**Protecting whales and dolphins**
Sika and Descol support the UN project ‘Year of the Dolphins’, to protect whales and dolphins in the Mediterranean Sea. Seven species of whale and four species of dolphin are currently threatened with extinction there, as a result of overfishing and pollution. Sika and Descol are actively involved in the development of new fishing methods that give whales and dolphins in the Mediterranean Sea another chance.

**Social and ecological support in growing markets**
In 2005, Sika set up the ‘Romuald Burkhard Foundation’. This foundation provides financial support for social and ecological projects in regions in which Sika and its subsidiaries have offices. These are often areas in which the economy is only just starting to develop and where there is still a lack of knowledge on environmental protection. Supported projects include improvement of the infrastructure, technical education for the local population, and various water purification projects.





# environment

Sustainable entrepreneurship is not an empty slogan at Descol.
For years, we have been working hard to strike a sound balance between man and the environment. “This starts with our staff,“ explains Bas Logister. “From the top to the bottom of our organisation, everyone is aware that people can really make the difference. This means that we let our employees do courses, to enable them to take the environment as the starting point in everything they do in their daily practice.
This constitutes the basis for the awareness of the importance of sustainability, which is supported throughout the organisation.”

**ISO 14001 Environmental Management System**
“Descol is continuously investing in innovative and environmentally friendly solutions throughout the chain,” according to Bas Logister. “From R&D and production right down to installing and maintenance of our sports floors, the focus is on sustainability. Our environmental management system is ISO 14001-certified. But we do much more. We respect all legislation and regulations worldwide, and like to take up the challenge of creating innovative solutions to save the environment. For example, in the production of our compounds, we have banned all heavy metals such as lead, cadmium and mercury. Even better, 60% of all materials used can be labelled ‘recycled’. An example is the use of approximately 1,000,000 discarded tyres a year and renewable raw materials such as castor oil, a natural and inexhaustible resource.”

**Recyclable plant waste** Bas Logister continues:
“During the production process, the environment plays a key role too. Our manufacturing processes are designed in such a way that we use less energy every year. To restrict emissions of hazardous substances, we use particle filter systems and ensure that cooling and waste water are as clean as possible. Almost 100% of our plant waste is currently recyclable. This was achieved by our smart approach to both our own production facilities and the materials delivered by suppliers. We re-use as much of the return packaging of our raw materials as possible. The majority of our product packaging is also recycled. We support sustainable building and purchasing, and we are a member of the Dutch Green Building Council and Ecospecifier.”

**Sustainable use** “When we install our floors, we use water-based coatings whenever we can. But also when the floor is in use, the environment plays a key role. Leaching into the soil is not an issue and emissions into the atmosphere are very limited. Maintenance can be done with water-based environmentally friendly cleaning agents. In addition, our practical experience gained in decades of floor installation has proven that our sports floors are so durable that they exceed the life of the building. After a facelift, a Pulastic® sports floor is ready again for years of service. If a customer, for whatever reason, decides to eventually replace the floor, the waste material can be removed as industrial waste without any problem.”

**Creating conditions for the future** “Caring for the environment is ingrained in Descol,” Bas Logister concludes, not without pride. “Parent company Sika takes part in the worldwide Responsible Care Program, set up by the chemical industry. All 106 Sika subsidiaries in 72 countries are committed to this programme.
In its annual reports, Sika publishes the results of its efforts in the field of sustainability. But Sika companies also support a range of social and ecological projects around the world. We believe that respect for nature starts at the level of the individual. Every human being must be aware of the fact that we have the world on loan. Today we want to create the conditions for a cleaner world tomorrow. This is the challenge that drives Descol!”

**Sika, Descol and sustainability** Working at Sika and Descol means that employees ensure every day that the business process continues. Business continuation is the ultimate in sustainability. To safeguard that future, employees work by the standards set by the management. For more information, please refer to http://www.sika.com under ‘about us’. Sika and Descol know that sustainability also implies social involvement. An example of a project in which both Sika and Descol cooperate along with many other suppliers, is the Ronald McDonald Centre Only Friends. For more information on this project, see page 24.

**Descol and the environment summary**

- ISO 14001 Environmental Management System
- Refrain from using heavy metals in the production of compounds
- Water-based colours
- 60% of raw materials consists of recycled material
- Plant waste is 100% recyclable
- Particle filters for clean emissions
- Active reduction of energy consumption
- Water-based coatings used in applications
- When in use, no leaching into the soil and limited emissions into the atmosphere
- Maintenance with water-based cleaning agents
- At the end of its lifecycle, the floor can be discarded as regular industrial waste
- Member of Dutch Green Building Council and Ecospecifier
- Supports social and ecological projects around the world
- New Combi floor with FSC certification

FSC
Responsible Care
Dutch Green Building Council
KEMA CERTIFICAAT ISO 9001 ISO 14001

PULASTIC®

# esther vergeer

Esther Vergeer's challenge

"I want to get everything out of life that's in it"

**Esther Vergeer has been the undisputed number 1** in the world wheelchair tennis rankings. She won gold medals for the Netherlands at the Paralympics in Sydney, Athens and Beijing, and won more tournaments and Grand Slams all over the world than any disabled tennis player ever. Reaching the top was the ultimate challenge. Having achieved that, she is now considering a future without top level competition. A talk about pushing back frontiers, making dreams come true, and getting everything out of life.

In 1988, at the age of six, Esther Vergeer was admitted to hospital with severe headaches. Medical examination showed an accumulation of fluid in her brain, which was removed surgically. The following year, the same happened twice, but it was not until 1990 that doctors discovered that Esther suffered from a serious blood vessel defect around her spinal cord. The operation that followed, changed her life forever. The blood vessel defect was repaired, but she would never be able to use her legs fully again. This was the beginning of a long rehabilitation process, which would evolve in an impressive sport career.

**The smile came back** "Sports were very important during rehabilitation," says Esther. "I quickly realised that I could do much more in a wheelchair than I had ever thought. I tried everything in those days. From volleyball (sitting) to table tennis and from basket ball to wheelchair tennis. My mother still says that it was the sports that brought the smile back on my face. Sporting was really my thing, and in particular basket ball and tennis were great. During my rehabilitation, the foundation was laid for my later sport career."

**European Wheelchair Basket Ball Champion** "What many people do not know, is that the national wheelchair basket ball team that I was part of, became European Champion in 1997. In those days, I still combined basket ball and tennis. But that became too much and I had to make a choice. I chose tennis because I felt that I could reach the absolute top in that sport. Strange really, because I was never very pushy at school, a simple 'pass' was enough. But if you find something you're really good at, a fire is lit. I wanted to get the best out of myself."

**Gold medal in Sydney** In numerous matches and tournaments both at home and abroad, Esther's star soon rose in worldwide wheelchair tennis. In 1998, she won the US Open, climbing from 15th to 2nd position. "Reaching and adjusting targets was something I did all the time then. When you climb the ranking so quickly, it's natural to want to become number 1. I did in 1999. Taking part in the Paralympics in Sydney was my next goal. Or rather, I wanted to win them! I had only one goal: GOLD! Achieving that was really incredible."

**Winning Wimbledon** During the next few years, Esther lived in 'a tunnel', as she describes it. "Top athletes are very much focussed on themselves. Practising six times a week, travelling around the world to play matches, minding your diet, no glass of rosé with friends, and living only for one goal: to become and stay the best. But when you have won everything there is to win, you reach a turning point. I am 27 years old now, I have won gold medals in three different Paralympics, I have won all Grand Slams, and I have been number 1 for years now. In fact, there is only one challenge left, which is to win the title at Wimbledon. This year, the women's double is on the programme for the first time in London. I definitely want to grab that title, together with Korie Homan."

**Outdoor favourite** Looking at Esther's ambitions and achievements, it is easy to make the link with Descol. "Wanting to be the best is a daily challenge. I have heard that Descol is also in the process of developing outdoor sports floors. I am certainly interested in that. Outdoor tennis is my favourite. In that respect, Wimbledon will be a double challenge. Balls hardly bounce on grass. It is true that in wheelchair tennis the ball can bounce twice before you hit it, but is that enough on the sacred grass of Wimbledon?"

**Esther Vergeer Foundation** For more than 10 years, tennis was a full-time job for Esther. But at the same time, she was also doing her study of Management, Economics and Law, she fulfilled several ambassadorships, including for Ronald McDonald Only Friends, and she was also the tournament director of the first ABN AMRO Wheelchair Tennis Tournament. But her own Esther Vergeer Foundation is also taking up more and more of her time. "I want to help as many disabled children as possible to come into contact with sports. I also think it's important for regular and disabled sportsmen and sportswomen to mix, to discover how many things are still possible even if you're disabled. That will definitely something I can see myself doing after my career in sports. Working with people, telling my story, and encouraging disabled children to do sports."

# certification

Performing in the upper bandwidth

## EN 14904 - The European standard for sports floors

**The European Committee for Standardisation CEN** (Comité Européen de Normalisation) has spent more than 20 years drafting an European standard for multifunctional indoor sports floors. Descol played a pioneering role in this process, as chairman of Dutch Working Group 2 “Indoor Sports Floors”. In this working group, which operates both at European and at national level, includes representatives from the manufacturers, end-users, sports federations and research organisations. Together, we drafted the new standard, which was published in April 2006: EN 14904. Since then, various European member states have started implementation projects, to integrate this standard into their respective national standardisations.

The desire to draw up an European standard for multifunctional indoor sports floors was actually quite an obvious one. After all, sports is an international phenomenon. If the rules of the game and the layout of the sports surfaces are the same, then it’s only natural that the floors on which these sports are played, also match in terms of performance. This is what the EN 14904 guarantees, albeit that countries are free to move within a certain bandwidth.

**Safety first** The basis for European standardisation is the minimum performance level of the sports floor, divided into three categories. There are the so-called essential safety requirements for users, such as shock absorption and friction, but also fire-resistance and emission of hazardous substances. Safety is one of the main issues in the new standard, aimed in particular to meet the expectations of users. A CE-labelled floor guarantees that it is safe to play sports on, while the owner of the floor is sure of a sustainable product that will last for years. If a product meets the essential safety requirements, it is allowed to carry the CE mark. To meet all requirements of the standard, however, the product must also meet various requirements in two other categories. These concern a number of sports characteristics, such as levelness, vertical ball behaviour and a variety of technical properties, such as resistance to impact and resistance to a rolling load. If all requirements are met, a manufacturer is able to offer an EN 14904-certified floor.

**Well thought-out standard** This European standard may be called unique. In particular because the requirements laid down in it are very high, also for countries in the European Union who have not yet reached a high level of development in sports floors. The EN standard goes much further than comparable standards in the United States or Asia.
It is by far the most well thought-out and developed standard ever published. Nevertheless, the standard does not go far enough, according to some European member states. The EN 14904 standard only specifies the minimum technical requirements for multifunctional sports floors.

**Adaptions and integration in national standards** The publication of the original EN standard is done by CEN. Once released by CEN national standardisation bodies like DIN, BSI, AFNOR, NBI, UNE, etc. can publish the standard - if required in their own language - and add a national introduction. These bodies can also write the earlier mentioned more detailed requirements within the general bandwidth and additional local requirements not covered in the European standard. In the Netherlands NOC*NSF is responsible, on behalf of the national sports federations, for the publication of the multipurpose standards at the national level. NOC*NSF has implemented NEN-EN 14904 as the basis, to which existing Dutch complements have been added in order to arrive at the updated NOC*NSF standard. The new release was published on the 1st of January 2009. Several European countries released the standard earlier, DIN still has to fully transfer to the EN harmonised methods. Member states have a 2 year period to integrate the standard during which time buyers have to pay extra attention to specifications and test reports. In order to compare apples with apples one needs to assure that published results are achieved under the same test method and release of the standard. National standardisation bodies or sports federations can provide more detailed information on the current status on a local level. You can of course also contact the export department at Descol (export@descol.nl).

| **Description** | **Measuring method** | **NEN-EN 14904** (May 2006) |
|---|---|---|
| Levelness | EN 13036-7 | distance 3m: max. 6mm<br>distance 300mm: max. 2mm |
| Vertical deformation | EN 14809 | ≤ 5mm (+informative annex) |
| Shock absorption | EN 14808 | 25-75% |
| Friction | EN 13036-4 | 80 - 110 |
| Vertical ball behaviour | EN 12235 | ≥ 90% |
| Specular gloss | ISO 2813 | ≤ 30% |
| Specular reflectance | EN 13745 | characterisation |
| Resistance to indentation | EN 1516 | 0.5mm (after 24 hours) |
| Resistance to impact at 10° C | EN 1517 | ≥ 800g |
| Resistance to a rolling load | EN 1569 | > 1,500 N |
| Wear - synthetic | ISO 5470-1(H18/1kg/1000 cyc) | 1,000mg |
| Wear - wood varnish | ISO 5470-1(CS10/0.5kg/1000 cyc) | 80mg |
| Reaction to fire | EN 13501 | Class $A_x$ - $F_x$ |
| Smoke emission | | s1 - s2 |
| Formaldehyde emission | EN 717-1/EN 717-2 | ≤ 0.124mg/m$^3$ |
| Pentachlorophenol (PCP) | EN 12673 | < 0.1% (mass) |
| Factory Production Control | ISO 9001 or equivalent | ISO 9001 or equivalent |

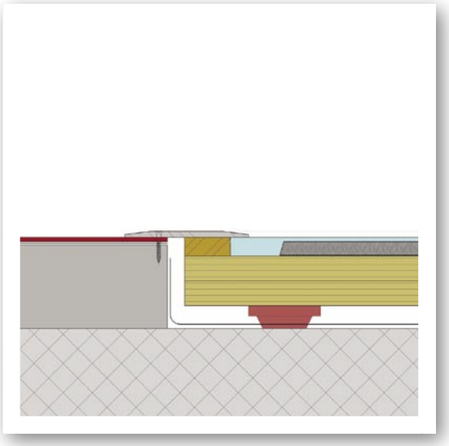
**Approval and characterisation** Harmonised test methods are used in laboratory research to demonstrate that the requirements set in the standard have been met. Therefore laboratory approval according EN 14904 in one European country by an official institute is also valid in another. Descol’s Dutch ISA Sport reports therefore have the same value all over Europe. After passing the standard floor can be characterised in typical classes as per the informative annex of the standard. The goal of this is to give specifiers a general idea of the type of performance one can expect from a certain floor. After all point-elastic floors behave differently than area-elastic floors as explained in the crash-course on pages 4 to 11. The Pulastic range of sports flooring systems contains a wide selection of floor types, each with unique characteristics. There is a Pulastic floor according to each characterisation in the EN 14904. For Descol, the new standard had two important effects. On the one hand some floors had to be re-engineered to meet the standard. On the other hand, the new test methods resulted in several floors being classified in a different category. This all challenged the Pulastic Research & Development team to use the EN standard as the guide for the development and testing of new floors. This issue of Challenges contains an initial overview.

**Quality Control** EN 14904 states that obtaining certification requires not only a type rating issued by an acknowledged institute, but also quality control during production. Companies such as Descol, who are ISO 9001-certified, are automatically qualified. In the Netherlands, Descol additionally chooses to supply products under certification. This means that all its floors are registered and continually inspected using a fixed system of site tests by an acknowledged institute.

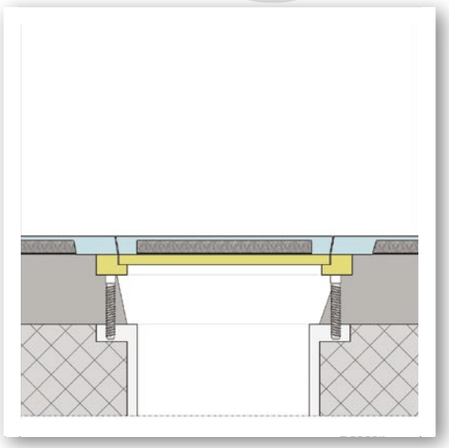
**Minimal is not good enough** The minimum performance requirements listed in EN 14904 constitute a major step forward towards greater standardisation of multifunctional indoor sports floors in Europe. But meeting minimum requirements is by far not good enough for Descol. That is why Descol floors perform in the upper end of the bandwidth specified, both in terms of safety and sports performance, and in terms of mechanical load-bearing capacity. The product development is a continuous process improve quality. This is only logical. Descol has been developing, manufacturing and installing sports floors in the Netherlands and abroad since 1965. Looking at the more than 25 million square meters of sports floors we have installed over the years, it may come as no surprise that Descol is able to offer a full range of EN 14904-certified sports floors.

boarding

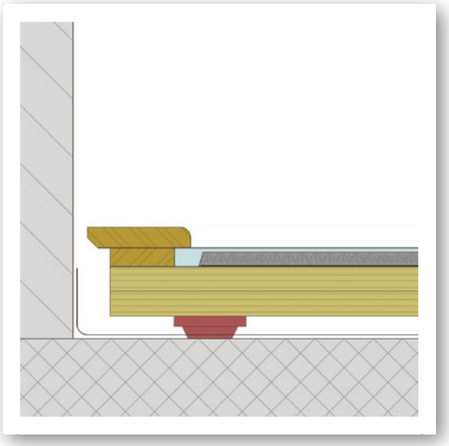
# The frame your floor deserves



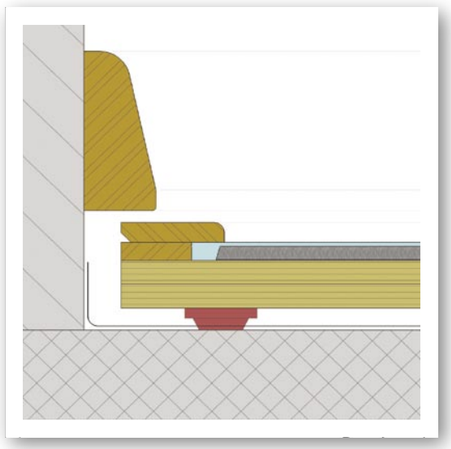
**Transition profile** A floor profile or transition profile can be installed to give the floor a final finish. A profile can also be installed to bridge a gap between floor sections.



**Floor mounted equipment** Most sports require some kind of equipment and it is common that this includes floor inserts. Within the Pulastic programme a full range of services is provided to ensure proper and durable functioning of the equipment while ensuring safety and easy maintenance. As an example we can provide covers for floor sockets covered with the Pulastic flooring system. Our experts are able to provide a variety of tailor made solutions.



**Horizontal boarding** Just like the floor profile, the horizontal boarding adds substance to the floor. This boarding can be supplied in wood/meranti colour or coated in the same colour as the floor. The horizontal boarding acts as a raised edge, preventing water from flowing off the floor during cleaning. The horizontal boarding also protects the edges of the floor.



**Ventilation board** The ventilation board is a robust, vertical skirting board, specially designed by Descol for its combi-floor. It requires a matching horizontal skirting board. This combination is a high-quality finish that is fitting for a high end floor. The wall mounted board prevents dust and dirt build up at the floor edges. The boards can be coated in the same colour as the floor.





Running, jumping, flying, diving, falling, getting up and going on

PULASTIC®

services

Your sports floor in top condition

# Descol's services For a life of sports fun

**Selecting a sports floor** is not an easy task. After all, you want a good return on your investment, preferably during its entire lifecycle. This is exactly what Descol believes too, so we have developed an extensive service package that guarantees that your Pulastic® sports floor system continues to meet all usage and safety requirements. Maintenance plays a crucial role.

Cleaning tips Regular cleaning ensures that your Pulastic® floor keeps its matt appearance and proper friction properties. This promotes safety and optimal sports performances. Descol's cleaning recommendations add value. Simply download them from the Descol website or apply for a copy by sending an e-mail request to export@descol.nl. Descol also supplies cleaning products, such as Pulastic® Classic Clean, Pulastic® Start Clean, Pulastic® Eco Clean and Pulastic® Deep Clean.

Cleaning contract Each new Pulastic® floor needs a pre-treatment cleaning. For subsequent maintenance, Descol offers cleaning contracts. Depending on your requirements and the type of facility (playground, gymnasium, sports centre or sports hall), a fixed monthly amount guarantees that your floor stays in perfect condition. If you have any questions on cleaning your sports floor, please send your questions by e-mail to export@descol.nl or your local expert.

Annual inspection Safety and maintenance are closely linked. The better the maintenance, the smaller the risk of injuries and the longer you benefit from your investment. A Pulastic® maintenance contract is the perfect solution for those who refuse to make any concessions when it comes to safety and quality of sports floors. Each maintenance contract includes an annual inspection. Expert service technicians inspect your sports floor, objectively assessing aspects such as mechanical damage, resilience, friction, the status of line markings, and surface hardness. Their findings are recorded in a report.

Expert maintenance To provide maintenance services, Descol employs experienced consultants, who receive intensive coaching and training. Descol schedules your maintenance for you, avoiding the need for your staff to keep records. Depending on the type of contract, your floor may receive a facelift or revitalisation. In the case of a facelift, your floor need not be replaced, but the existing floor - depending on the its status - may receive a new top layer.

Long-range budget To complement your maintenance contract, Descol also offers long-range budgeting. This starts with a thorough inventory of the sports floors in your facilities, to establish their real lifecycles. Descol then offers practical advice for the expected costs in the short, medium and long term. Together with your maintenance contract, this provides you with an annual check of the status of the floor and insight in financial prospects.

The availablility of regular cleaning and maintenance services may vary per country. Please consult your local partner for detailed possibilities.





outdoor

Descol sports surfaces has now gone outdoors too

# Pulastic Comfort Court

**Great news** for those who love to exercise sports on outdoors facilities and also would like to continue to enjoy the known quality and comfort of the Pulastic seamless sports flooring systems. Pulastic Comfort Court is designed to bring a true multipurpose sports floor for both fully open and sheltered outdoor courts. Under dry conditions the playability, safety and comfort match the performance of our indoor systems.

With the typical Pulastic characteristics Descol now offers a new outdoor system suitable for all types of sports. For your information: this multipurpose system can be used in both (very) warm and cold weather conditions without any change in the comfort of the system!

Pulastic Comfort Court is a seamless polyurethane system installed on a rubber shock pad base mat. This gives the system resilient characteristics that make it very pleasant and safe to play sports on. Also the new Pulastic Comfort Court has a dimpled surface and is very tough and durable. This floor system is for those places mainly used as a multipurpose sports court and can also be modified to a dedicated tennis court. Due to the dimpled surface, it is easy to execute a sliding maneuver when playing tennis, volleyball or soccer. Because of the use of polyurethane materials, the risk of skin burn marks is minimized.

In line with the existing indoor Pulastic solutions, the outdoor solution should offer the same safety, comfort and durability and at the same time, be very consistent under (big) temperature variations. As such, the Pulastic Comfort Court has been developed from scratch on. It means too that the newly developed polyurethanes offer a huge resistance against freezing conditions without becoming brittle. And at the same time offer this very same resistance against high temperatures (conditions such as those that are common in the equatorial regions) as the material will not weaken either.

Besides the use of a prefabricated rubber shock pad, this system can also be installed on an insitu applied rubber shock pad. Consult Descol sports surfaces in the event of doing so.

As sub-bases, leveled concrete slabs or open/porous leveled asphalt surfaces are both very suitable for installing a Pulastic Comfort Court system.

Features & Benefits:

- **Comfort;** Due to the shock pad and the flexible wear layer, the floor is very comfortable to play on compared to the commonly used hard court solutions.
- **Safety;** with its renown, durable Pulastic top finish with its well-balanced friction/sliding properties, the Comfort Court offers safety for the players at all time.
- **Seamless design;** 70% of all floor failures start with a seam; so, no seams, no problems.
- **Closed surfaces;** No dirt or bacteria can penetrate the floor; very easy to clean, very hygienic.
- **Multisport use;** The surface makes it suitable to play all kinds of ball games, including tennis, basketball, handball, football or netball.
- **Every design is possible;** Including using more colours in one floor or inserting a sports club logo in the floor.
- **Excellent UV resistance;** This ensures a surface with the same appearance for years and years after installation.
- **Resistant;** Pulastic Comfort Court is resistant against cigarette burns and many common chemicals.
- **Easy to repair;** When the floor is damaged, it can be repaired seamlessly.
- **Easy to change the design;** The surface can be recoated with Pulastic coating in a different colour without having to remove the existing floor.
- **Asphalt or Concrete sub-base;** Both are suitable for installing Pulastic Comfort Court. Please consult technical data for subfloor specifications.

PULASTIC®

world first

**10,000 m² Sika and Descol for the Ronald McDonald Centre**

| Type of room | Number of m² (approx.) | Partner |
|---|---|---|
| Sports hall: sports floor and storage | 1,520 | Descol |
| Changing rooms, corridors, fitness room | 2,000 | Sika / Descol |
| Swimming pool: changing rooms, corridors | 1,900 | Sika / Descol |
| swimming pool platforms | 350 | Sika |
| Changing rooms near pitches | 500 | Sika / Descol |
| Porter's lodge | 85 | Sika / Descol |
| Roofing | 4,000 | Sika /Sarnafil |

**10,000 m² Descol and Sika involved in unique project**

# From Roof to Floor in the Ronald McDonald Centre

**In the North of Amsterdam in the Netherlands**, the first sports and leisure centre in Western Europe for children with a disability is being built: the Ronald McDonald Centre. Children and youngsters up to the age of 25 suffering from physical or mental disabilities or chronic complaints, can come here and enjoy sports and leisure activities. Sika and Descol applaud the project and support it from 'Roof to Floor'.

This unique centre was designed by Peer Glandorff from Fact Architects, whose design won the BNA Young Architects' Award. The 'Stadion Park' design consists of two sports fields and an athletics track, a playground, a cycling course and a number of buildings: main building, dugout, changing rooms and a porter's lodge. The main building contains a clubhouse, fitness room, dojo (martial arts room), a swimming pool and a large sports hall. But there is more than just physical exercising: there are also board and computer games, and there is a play corner for the very youngest. The clubhouse is the central meeting place for all: children, parents, volunteers, staff and visitors.

**From basement to roof** Jeroen Bontenbal, Sales Manager at Descol sports surfaces, is proud of the contribution made by Descol and Sika to this unique project. "More than two years ago, Descol came into contact with Fact Architects and the Ronald McDonald Centre. During the initial meetings, it quickly became clear that the project involved not just sports floors, but all floors in the centre. And there was more. The appeal made to Descol and Sika also included roofing and sealing. Our contribution to the project extends from basement to roof."

**Full-service supplier** Jeroen Bontenbal continues: "The Ronald McDonald Centre is a good example of the way in which Sika markets the 'Roof to Floor' concept. When the Roofing department of the Sika concern is involved in a project, they often refer to the Flooring department. And vice versa. In this type of projects, Sika acts as a full-service supplier: from roofing and floors to sealing and coatings."

**Everyone is involved** The 'Stadion Park' is characterised by beautiful shapes and was praised by the jury for its clear and transparent concept. The main pillars of this design are clarity, contact, and accessibility. The premises and the building include both sports facilities and grandstands: everyone is both athlete and spectator. The wall and row of trees around the sports fields, create the atmosphere of a stadium and a sheltered environment at the same time. Peer Glandorff explains: "During the design phase, I tried to put myself in the position of the future users. I wanted to create a place where children would feel both at home and top athletes. It should not look like a sports centre for the disabled, but a place where everyone plays a valid role. What is important, is not what they cannot do, but what they can do."

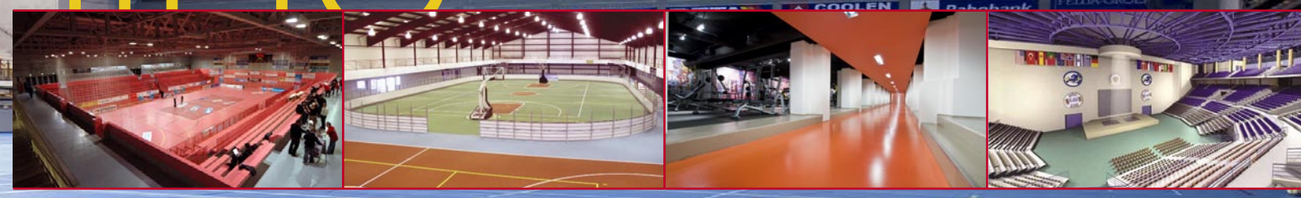
**Choice of materials** "To specify the details of the design, I consulted suppliers, because I wanted to know if they could create what I had in mind. I approached Descol with my ideas, and they were immediately enthusiastic. For example, I had clear ideas on the use of colours for the various floors in the centre. The clubhouse should have a red floor, extending to the access steps to the field. Near the sports hall, the floor is green; the green glass guides users from the dark to the light of the sports hall. Blue indicates that one is in the swimming pool area. Descol was able to supply exactly the right floors and was positively inclined towards the project. It is nice to work with partners who understand the social relevance and are able to make a meaningful contribution with their know-how and experience. The same goes for all suppliers in this project. It is great to see how much money was generated to build something truly special!"

**Making the impossible possible** Jeroen Bontenbal agrees: "Together we are creating something unique, and it shows our company's social involvement. But apart from charity, a project like this also offers opportunities, for example to strengthen Sika's brand awareness. It is great to be mentioned alongside global companies such as McDonald's, Pepsi, Philips, and Volker Wessels, who also take part in the project. Participating greatly adds to Descol's and Sika's image. But it also carries with it a certain responsibility: you want to have the best of the best, but it is always a choice between materials, expenses and possibilities. Sometimes the impossible must be made possible. The expectation level is high, but that makes it all the more gratifying when you succeed."

**Continuous development** Peer Glandorff concludes: "as an architect, you try to convince others of your ideas. But you also want to challenge, in order to achieve something special together. This worked out great with Descol. A good example is our collaboration on the sports hall's line marking. My original idea was to 'switch off' those facilities that were irrelevant for a particular sport. This resulted in line marking using light (Pulastic® LED Court), an absolute world first for Descol. Another important aspect was the quality that Descol is able to deliver. One knows in advance the requirements set by the end users of the sports floor, and those characteristics must be guaranteed. Descol's floors are certified by NOC* NSF (National Olympic Committee), which is the quality guarantee that I am looking for as an architect. Ultimately, one looks for partners who not only want to participate, but who are capable and actually deliver. I am sure that when we look back on this project, we can say to each other: 'We created something truly special!'"

***For more information on this unique project, refer to www.ronaldmcdonaldcentre.nl***

# colours & line



## Classic colours

| 401 | 417 | 400 | 407 | 205 | 800 | 106 | 100 | 307 | 308 | 306 | 305 | 309 | 504 | 506 | 507 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| lime green | may green | green oxide | turquoise mint | sand beige | yellow ochre | autumn brown | red oxide | pastel blue | pigeon blue | steel blue | sky blue | capri blue | stone grey | dusty grey | iron grey |

## Design colours

| 421 | 422 | 125 | 124 | 126 | 121 | 122 | 123 | 221 | 223 | 222 | 200 | 521 | 321 | 322 | 323 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| sea mist | spring grass | dutch orange | autumn leaves | antique brass | classic pink | exotic red | maroon red | decisive yellow | tangelo | desert sunrise | gold | dolphin grey | wild orchid | mystical grape | midnight blue |

## Line marking colours

| black | light grey | white | light blue | blue | dark blue | lilac | ruby red | red orange | pastel orange | yellow | light green | dark green | dark brown | light brown |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|

# Pulastic in colour

Descol sports floors and materials can be supplied in familiar classic colours and contemporary design colours.

**More information?**
Go to www.descol.nl and visit our floor designer. Let yourself be surprised by dazzling combinations and design your own floor.

The colours shown here may deviate from the actual floor colour.

Our design colours require additional production time and come with a surcharge.

PULASTIC

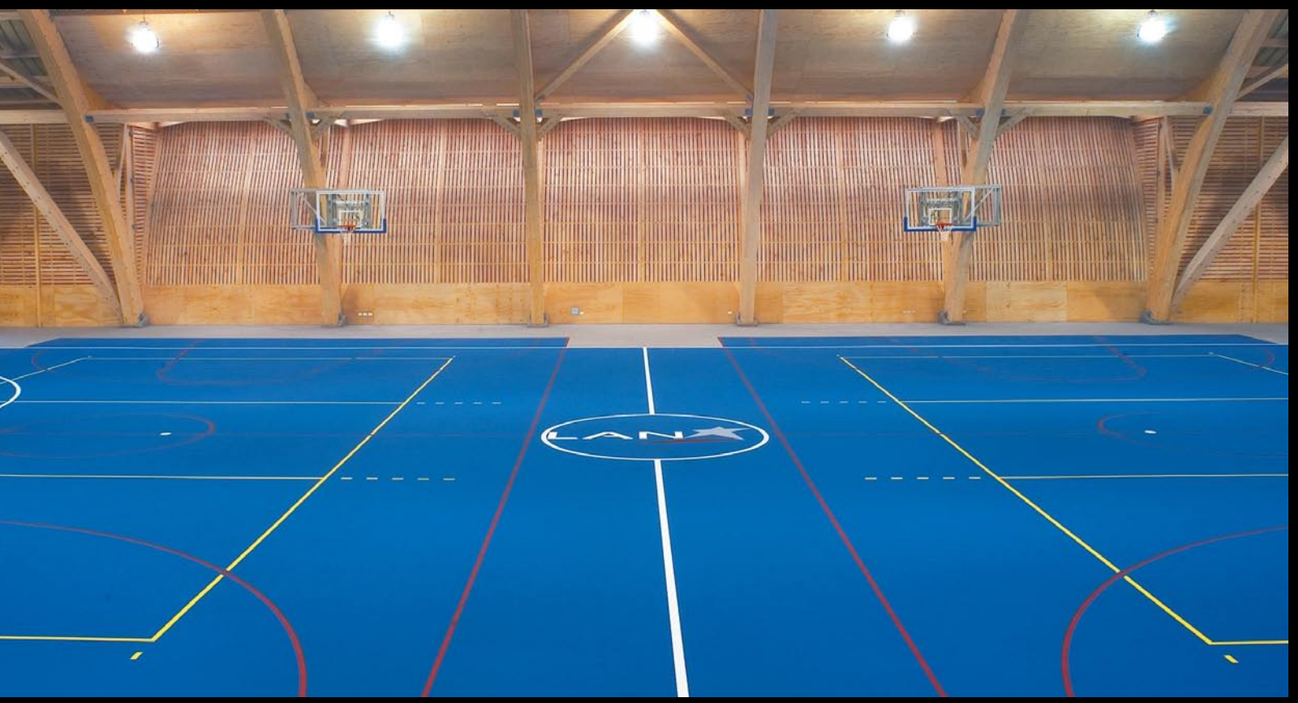
# installation

## Six steps towards success

**A Pulastic® sports floor** is always in top condition. To achieve this, we are constantly developing our systems and installation process. Our experienced installers use a proven staged process to install your Pulastic® sports floor with the greatest possible care. The result is a sustainable sports floor that can be used safely and reliably for many years.

Pulastic® sports floors are installed by expert installers in a specific order. We will gladly advise and assist you for optimal preparation. In the case of renovation, this may include professional removal and installation of subfloors out of concrete or asphalt and the installation of wooden subfloors.

For new projects, our consultants can also advise you on how to achieve a perfectly level and suitable subfloor. If necessary, we can prepare your subfloor by grinding, milling, shotblasting or levelling.



**1. Elastic sublayer**
The basis consists of a prefabricated elastic sublayer. This pad is bonded to the subfloor using a solvent-free adhesive.

**2. Sealing**
The purpose of the first of three synthetic layers poured onto the elastic sublayer is to create seal.

**3. Base layer**
The second layer is applied thinly, as a final preparation of the floor for the installation of the thicker self-levelling layer that provides mechanical strength to the floor. This synthetic layer provides a solid base and proper fit with walls and floor facilities.

**4. Self levelling top layer**
Over the base layer, using the same high-quality material and a colour that matches the final colour of the floor, a top layer is applied, which gives the floor its mechanical strength. During this operation, the material is actually poured and distributed with special tools. The self-levelling nature of the material creates the famous seamless Pulastic® top layer.

**5. Finishing**
Pulastic® sports floors derive their very high resistance to wear and matt finish from the final water-based sports floor coating. This coating is available in a wide range of classic colours, design colours and custom colours. The Pulastic® sports floor coating is considered the state-of-the-art worldwide.

**6. Line marking and logos**
The finishing touch for every sports floor is the line marking, applied by our line marking specialists. At this stage, any logos may also be applied.

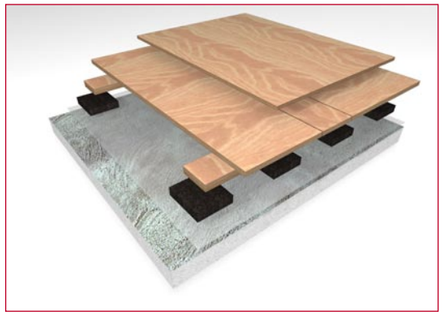
wooden subfloors

# Descol's Elite

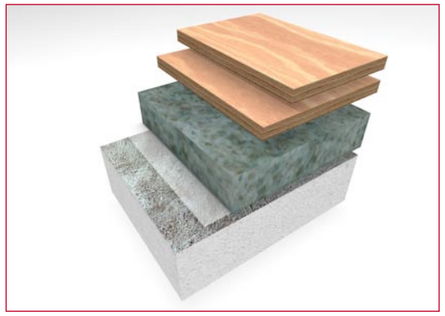
## Wooden subfloors from the Pulastic® Elite product range

**All Pulastic® point-elastic sports floors** can be used on area-elastic wooden subfloors. This combined structure improves comfort and safety levels for users. Descol has applied its more than 45 years of experience with wooden subfloors in order to select a full range of subfloor structures that meet a wide range of requirements and needs. We have called this the Pulastic® Elite product range. From this range, we have created a collection of popular combination structures. Ask Descol for an overview of the primary characteristics our Pulastic® Elite designs.

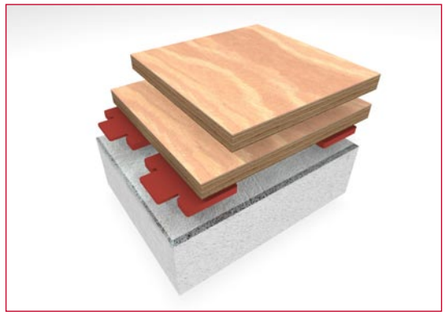
**Pulastic® Elite Classic** A design proven by decades of experience and millions of square meters installed. This structure is created entirely from plywood, to ensure maximum uniformity and quality. It has a minimum elevation of 68 mm and can be installed directly onto a concrete structural floor. During installation, the structure (standard up to 100 mm) is height-adjusted to achieve the required degree of levelness. In this type of structure, despite the use of plywood, the single top layer may show seams due to climatic fluctuations.



**Pulastic® Elite Advanced** Descol has optimised the traditional area-elastic subfloor. The Elite Advanced has a minimum elevation of only 59 mm and can be installed directly onto a concrete structural floor. Here too, levelling the structure up to 100 mm is standard. The fully bonded double top layer structure guarantees great uniformity and stability.



**Pulastic® Elite Comfort** Not only athletes who use the „Topsport hal" at the Dutch National Sports Centre Papendal, but also many international users appreciate the high level of comfort offered by Pulastic® Elite Comfort. This level of comfort is attributed in particular to the floor's rapid response behaviour. The fully load-bearing and uniform structure guarantees the same feel and ball bouncing behaviour across the floor. With 48 mm, its elevation is small. The fully bonded plywood boards ensure maximum stability in fluctuating climatic conditions. The standard structural floor needs to meet the same levelness requirements as the sports floor installed in accordance with EN 14904. It is possible, however, to first apply a layer of unbound minerals on the basic structural floor, complemented by blocks of insulation foam. This fully load-bearing structure and the great weight distribution properties of the Pulastic® Elite Comfort allow the floor to be installed directly onto these insulation blocks.



**Pulastic® Elite Performance** Descol has developed a subfloor with superior performance. The EPDM rubber pads with double-cone design and autostop feature, combined with 2 layers of fully bonded high-quality plywood, guarantee superior uniformity, ball bounce, load-bearing capabilities and stability. A sturdy design for heavy-duty use, ready to take on large basketball players and grandstands. Indoor athletes, such as basketball/volleyball players and sports instructors praise the comfort and sports performance characteristics. With an elevation of only 35 mm, the floor can be used virtually anywhere, even in many retrofit situations. The subfloor must be flat and level, in accordance with the sports floor requirements specified in EN 14904.

**Tailor-made advice** In addition to the wide range of wooden subfloors from the Pulastic® Elite product range, Descol also offers a variety of products to prevent moisture transfer from the subfloor. Options include plastic sheeting, bitumen strips or seamless moisture membranes. There are also various options for installing insulation or even underfloor heating in the floor structure. Descol's consultants will give you tailor-made advice. Arrange a meeting to consult Descol's experts.

Exercising and relaxation

# Wellnesscentre “Wellnesselande” shows its colours with Descol

**Wellnesselande in Barendrecht, NL** is unique in every respect. This ultramodern complex has all possible conveniences and the experienced team wants to inspire, motivate and professionally coach its visitors with a balanced offer of exercises and refreshing, welcoming relaxation options. One of the special aspects of this centre are undoubtedly the colourful floors in the different rooms. Descol laid the basis for a modern wellness experience.

Hans Kegel, one of Wellnesselande’s managers, is proud with the luxurious appearance of the sports centre. He has worked as a sports instructor for 24 years, teaches and has studied management. He says: “When the construction of Wellnesselande began, I started to become actively involved in building issues and all different facilities. Rolling up the sleeves and participating in the thought process suits the hands-on mentality at Wellnesselande. I soon found out, however, that building a wellness centre is no easy matter.”

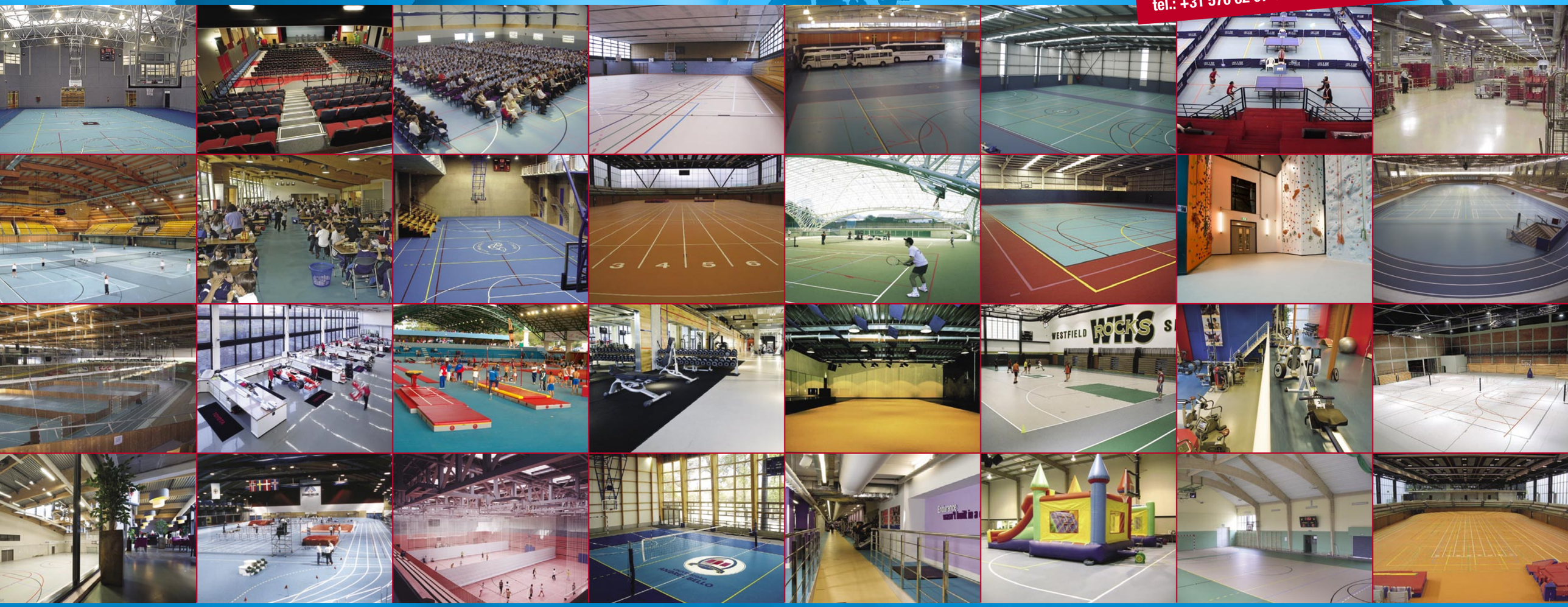
**The right look** “Before we could make choices on shapes, layout and materials, we needed to clearly put down on paper exactly what we wanted to offer. The combination of sports and relaxation had to be clear. This should be visible not only in the services offered, but also in the look of the building and the various rooms. This involves choosing the right floors. We were looking for a floor specialist who was able to install different types of floors, to fit all activities that we wished to offer.”

**All-in-one concept** “In a magazine, we came across the name Descol, so we called them. It turned out to be a good choice. Descol was able to show us good references and an enormous variety of options, floor types and colours. But more importantly: Descol was able to supply the floors for all rooms, a truly all-in-one concept. This enabled us to create unity within the building. The floors are also easy to maintain and to clean; they still look beautiful after almost two years of use. Those were our considerations to choose Descol. “

**The WOW effect** Hans Kegel concludes: “The use of colour definitely played an important role in our decision to work with Descol, because we wanted to create a special experience in Wellnesselande. That we were successful is proven by the fact that customers who enter for the first time, clearly experience the WOW effect. But we have also learned that our customers clearly prefer a Descol sports floor because of the high level of comfort, which helps to minimise injuries. And to complete the picture, we must not forget Descol’s after-sales service. The sales team is always available and provide expert advice and visit us immediately if needed. In the end, it’s the overall picture that matters and that is absolutely perfect in the case of Descol.”

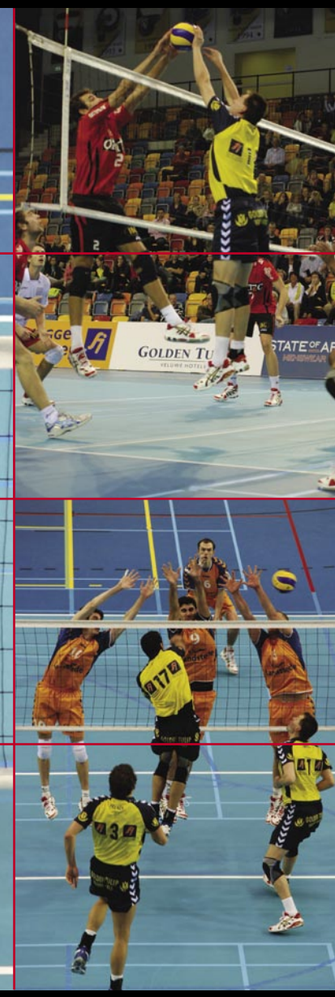
# references

**For more references, please contact Descol, at tel.: +31 570 62 07 44 or send an e-mail to export@descol.nl**




**PULASTIC® SPORTS FLOOR SYSTEMS HAVE BEEN INSTALLED IN:** ALBANIA • ALGERIA • ANGOLA • ARUBA • AUSTRALIA • AUSTRIA • BAHRAIN • BELGIUM • BOSNIA • BOTSWANA • BRAZIL • BRUNEI • BULGARIA • BHUTAN • CANADA • CHILE • CHINA • COLOMBIA • COSTA RICA • CZECH REPUBLIC • DENMARK • DJIBOUTI • DOMINICAN REPUBLIC • EGYPT • ESTONIA • ETHIOPIA • FINLAND • FRANCE • GERMANY • GREECE • GUAM • GUATEMALA • HONG KONG • HUNGARY • IRELAND • ICELAND • INDIA • INDONESIA • IRAQ • IRAN • ISRAEL • ITALY • JAPAN • KAZAKHSTAN • KOREA • KOSOVO • KUWAIT • LATVIA • LIBYA • LUXEMBOURG • MALAYSIA • MALDIVES • MALTA • MAURITIUS • MEXICO • MOZAMBIQUE • NAMIBIA • NEPAL • NETHERLANDS • NETHERLANDS ANTILLES • NEW ZEALAND • NORWAY • OMAN • PAKISTAN • PANAMA • PERU • POLAND • QATAR • ROMANIA • RUSSIA • SAUDI ARABIA • SERBIA • SINGAPORE • SLOVENIA • SOUTH AFRICA • SPAIN • SURINAM • SWEDEN • SWITZERLAND • SYRIA • TAIWAN • TANZANIA • THAILAND • TURKEY • UKRAINE • UNITED ARAB EMIRATES • UNITED KINGDOM • UNITED STATES OF AMERICA • VENEZUELA • YEMEN • ZIMBABWE **WHO IS NEXT...**

# Serving athletes with hi gh-performance flooring



FIVB

You play like you practise,
don’t compromise



PULASTIC

# full-service supplier

Special Descol

## The added value of a full-service supplier

**A Descol sports floor system** is in itself already very special. Thanks to the R&D department, which has been a pioneer for many years when it comes to developing sports floors that meet the highest standards. Descol does not only look at the floor; we also like to take the lead when it comes to services and products that are closely linked to the quality of a Pulastic® floor.
With innovative concepts that offer just that little bit extra.

**LED line marking** "The latest innovation at Descol is the unique light line marking: 'Pulastic LED Court'. In 2009 Descol won the so called „National Sports Innovation Award" with this idea. In this special invention, the lines are marked using LED lighting: Descol has spent a great deal of time and energy on this development, and leads the way in the industry. Whatever type of line marking you want, Descol offers a range of colours and materials for every floor and sport.

Nationale Sport Innovatie Prijs

**Underfloor heating** Heating indoor sports accommodations is not easy. Traditional heating systems heat the air, which then rises. The result is obvious: heating costs a lot of energy and therefore money, while users still have cold feet. With underfloor heating, this is a thing of the past.

**Wall covering** Good acoustic properties are becoming more and more important in accommodations. In particular because sound is absorbed not only through the walls, but also through the floors.
Descol sports floors score well when it comes to noise control. By collaborating with seasoned soundproofing experts, Descol is also able to provide added value in the field of acoustic optimisation.

**Sika Roof-to-Floor** Together with Sika, Descol offers the so-called Roof-to-Floor concept, a comprehensive approach to all your construction chemicals. The Roof-to-Floor concept is also applied to heating. This means that solar panels on the roof can be linked to underfloor heating elements in the sports hall. On pages 24 and 25 in this issue of Challenges, we describe how we applied the Roof-to-Floor concept in the unique Ronald McDonald Centre Only Friends.



PULASTIC®

**Clubsportive Haarlem, the Netherlands**
Total of 1,560 m² of Pulastic® floor systems.

line-up

# Pulastic® sports floors Winners in every category

**Pulastic® sports floors** are developed and manufactured according to strict standards and installed by experts. Descol listens carefully to the wishes and ideas of its customers and closely follows all market developments. Descol looks not only at the user, but also at the owner. Sports facilities need to be multifunctional and cost-effective, suitable for all sports and all sportsmen and -women. Moreover they must be suitable for exhibitions, concerts and other events. Pulastic® is therefore more than just a top quality sports floor.

With a Pulastic® sports floor, every athlete enjoys optimal performance and comfort; from amateur to world champion, and from toddler to pensioner. Whether it is PE at school, indoor athletics, outdoor tennis, fitness or physiotherapy, a Pulastic® sports floor system offers the ideal mix of protection and sports opportunities in all circumstances.

**Four basic principles** The article on the 10 considerations (see page 4) provided insight in the critical characteristics. But what makes a floor a true winner? Shock absorption or mechanical strength? Vertical ball behaviour or suitability for roller skating? Return on investment or cost of ownership? In the end, it is you who decides. To be worthy to carry the name Pulastic®, a sports floor should at least offer the following performance features:

- Resilient
- Seamless
- Durable
- Sustainable

**Bronze, Silver, Gold and Platinum** To give you an impression of the respective positions within the wide range of floor solutions, we have classified Pulastic® floor solutions in four lines, each with unique characteristics and qualities: Bronze, Silver, Gold and Platinum. Our leading principle was the comfort level experienced by athletes. Then we classified floors with similar comfort levels on the basis of long-term load-bearing capacities and ball bounce.

**Specific wishes and solutions** In addition to its 'precious metal' product lines, Descol has additional specific product lines: Performance, Facelift, Solid and Custom Line.

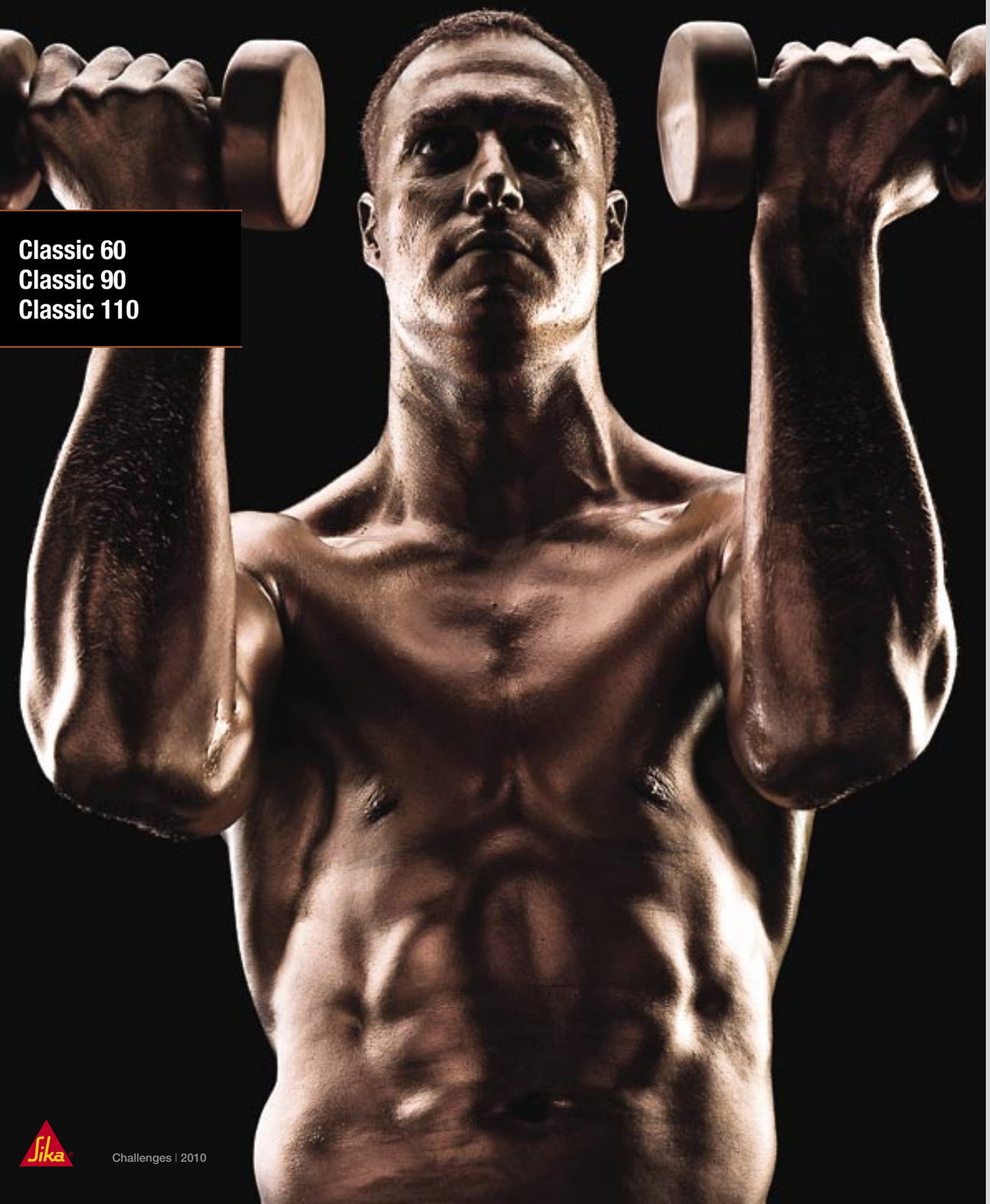
**Product overview** In the following product overview, you can find for each product line a number of examples from our current product range. Please contact one of our consultants for information about the latest floor solutions.

## Advantages of Pulastic® sports floor systems

- Seamless, non-porous and smooth surface
- Meets international standards
- Durable
- Optimum sports comfort and injury prevention
- Perfect balance between friction and sliding properties
- Good vertical ball behaviour
- No glare and clear line marking
- Multifunctional use
- Maximum static and dynamic load-bearing properties
- Wear-resistant water-based coating
- Excellent colourfastness
- Optimum soundproofing properties
- Wide range of modern colours and effects
- Easy maintenance and simple to clean and repair

bronze silver gold platinum

# bronze



**Classic 60**
**Classic 90**
**Classic 110**

Challenges | 2010

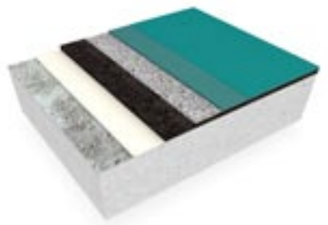


bronze

**The Pulastic® Bronze line** contains the traditional point-elastic sports floor systems that Descol has been installing around the world since 1965. Obviously, these systems have been adapted to the latest developments during the years. For example, if you choose one of our systems in the (optional) Eco version, you secure a longer lifetime of the floor because of increased mechanical strength and minimised emissions in order to contribute to clean air protection. The FR-rated products offer additional fire-retardant properties.

## Classic 60

bronze line



**Specifications**

| | |
|---|---|
| Nominal thickness | 6 mm |
| Character | Point-elastic |
| Classification (EN14904) | - |
| Comfort | ★ |
| Load-bearing capacity | ▲▲ |
| Ball bouncing | ⓘⓘⓘⓘⓘ |
| Options | ○ Eco<br>○ FR |

## Classic 90

bronze line

**Specifications**

| | |
|---|---|
| Nominal thickness | 9 mm |
| Character | Point-elastic |
| Classification (EN14904) | - |
| Comfort | ★★ |
| Load-bearing capacity | ▲▲ |
| Ball bouncing | ⓘⓘⓘⓘⓘ |
| Options | ○ Eco<br>○ FR |

## Classic 110

bronze line

**Specifications**

| | |
|---|---|
| Nominal thickness | 11 mm |
| Character | Point-elastic |
| Classification (EN14904) | P1 |
| Comfort | ★★★ |
| Load-bearing capacity | ▲▲▲▲ |
| Ball bouncing | ⓘⓘⓘⓘⓘ |
| Options | ● Eco<br>○ FR |

● standard
○ optional

# silver

**Pro 110 Comfort**
**Pro 150**
**Pro 165**
**Elite Comfort 20**
**Elite Performance 20**
**Elite Advanced 20**
**Elite Classic 60**

Challenge | 2010

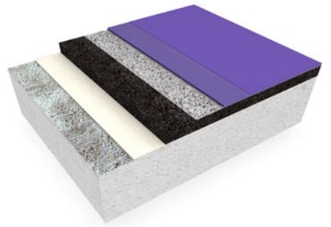


silver

**The Pulastic® Silver line** includes high-quality point-elastic sports floor systems with a high level of comfort and area-elastic sports floors from our Elite range. The Eco version is standard for all point-elastic floors. Which system from this range matches your specific situation best, depends on the user groups and of course you personal preferences. Our consultants will gladly help you make a well-considered choice.

## Pro 110 Comfort

silver line

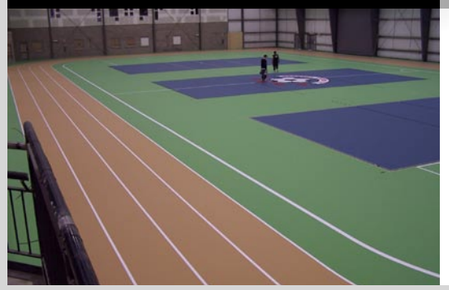


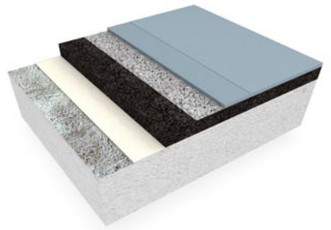
**Specifications**

| | |
|---|---|
| Nominal thickness | 11 mm |
| Character | Point-elastic |
| Classification (EN14904) | P1 |
| Comfort | ★★★★ |
| Load-bearing capacity | ▲▲▲ |
| Ball bouncing | ⓘⓘⓘⓘⓘⓘ |
| Options | ● Eco<br>○ FR |

## Pro 150

silver line



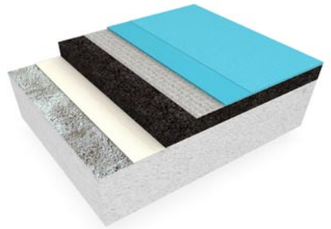


**Specifications**

| | |
|---|---|
| Nominal thickness | 15 mm |
| Character | Point-elastic |
| Classification (EN14904) | P1 |
| Comfort | ★★★★ |
| Load-bearing capacity | ▲▲▲▲ |
| Ball bouncing | ⓘⓘⓘⓘⓘⓘ |
| Options | ● Eco<br>○ FR |

## Pro 165

silver line



**Specifications**

| | |
|---|---|
| Nominal thickness | 16.5 mm |
| Character | Point-elastic |
| Classification (EN14904) | Approved |
| Comfort | ★★★★★ |
| Load-bearing capacity | ▲▲▲ |
| Ball bouncing | ⓘⓘⓘⓘⓘⓘ |
| Options | ● Eco<br>○ FR<br>○ Deco<br>○ Absorbic |

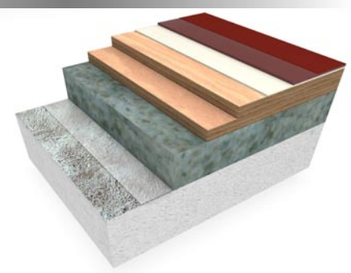
● standard
○ optional

PULASTIC®

silver

## Elite Comfort 20

silver line

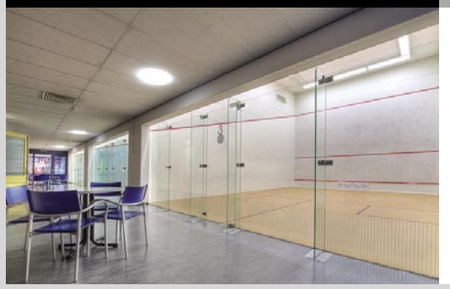


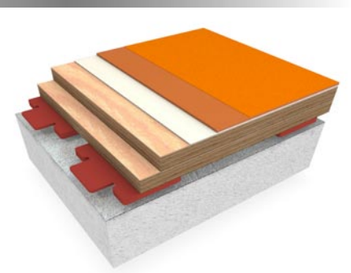
**Specifications**

| | |
|---|---|
| Nominal thickness | 50 mm |
| Character | Area-elastic |
| Classification (EN14904) | A3 |
| Comfort | ★★★ |
| Load-bearing capacity | ▲▲▲ |
| Ball bouncing | ⓘⓘⓘⓘⓘ |
| Options | ○ Eco |
| | ○ FR |

## Elite Performance 20

silver line



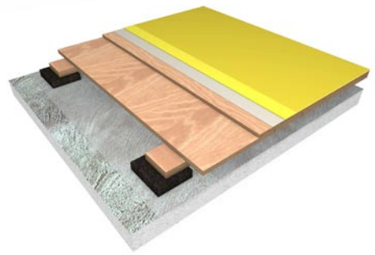


**Specifications**

| | |
|---|---|
| Nominal thickness | 37 mm |
| Character | Area-elastic |
| Classification (EN14904) | A3 |
| Comfort | ★★ |
| Load-bearing capacity | ▲▲▲▲ |
| Ball bouncing | ⓘⓘⓘⓘⓘ |
| Options | ○ Eco |
| | ○ FR |

## Elite Advanced 20

silver line



**Specifications**

| | |
|---|---|
| Nominal thickness | 61-100 mm |
| Character | Area-elastic |
| Classification (EN14904) | A3* |
| Comfort | ★★ |
| Load-bearing capacity | ▲▲▲▲ |
| Ball bouncing | ⓘⓘⓘ |
| Options | ○ Eco |
| | ○ FR |

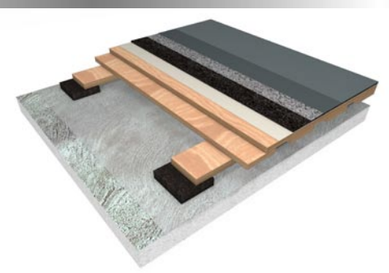
● standard
○ optional
* approval pending





## Elite Classic 60

silver line



**Specifications**

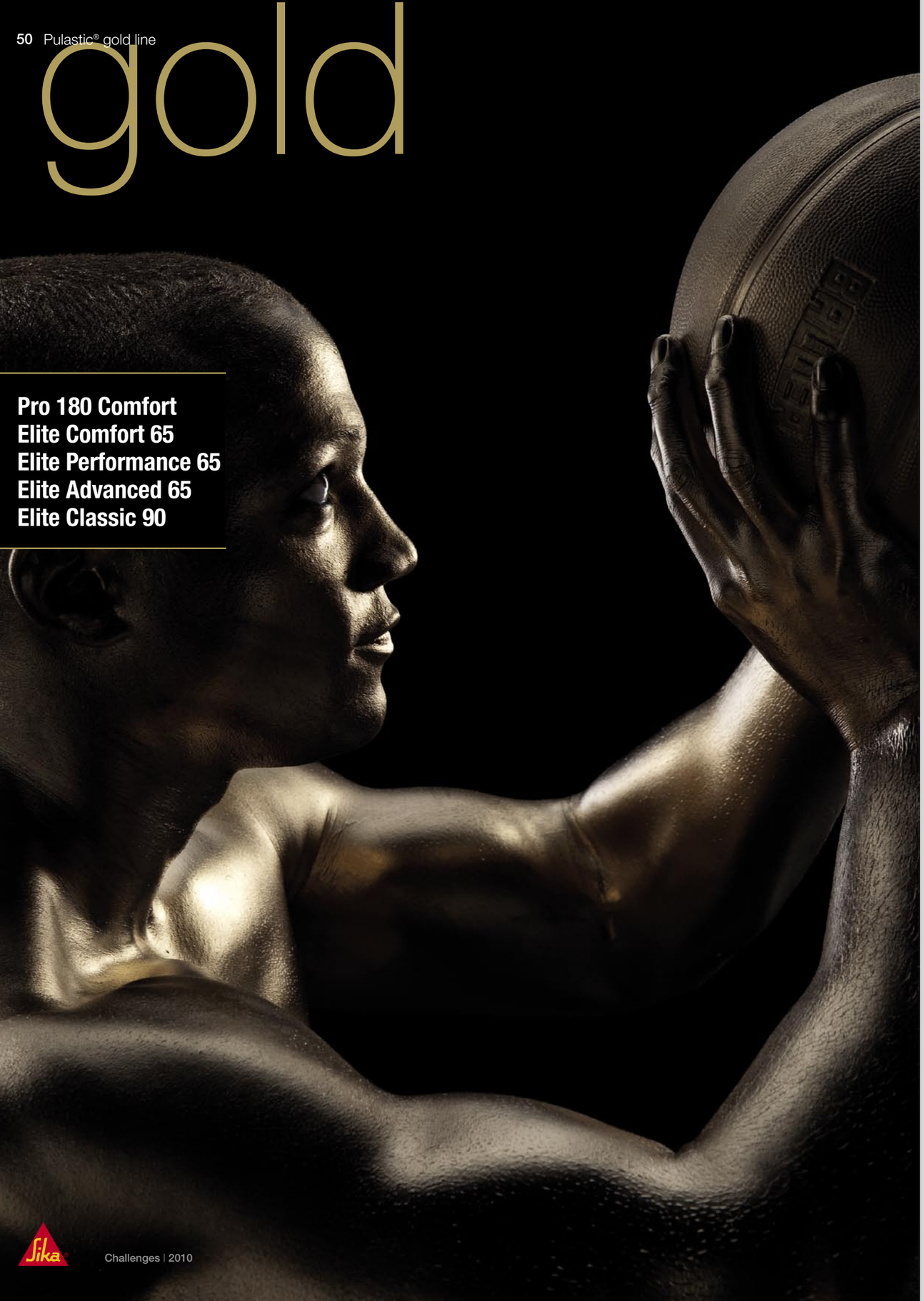
| | |
|---|---|
| Nominal thickness | 74-100 mm |
| Character | Combi-elastic |
| Classification (EN14904) | C4 |
| Comfort | ★★★★ |
| Load-bearing capacity | ▲▲ |
| Ball bouncing | ⓘⓘⓘ |
| Options | ○ Eco |
| | ○ FR |

● standard
○ optional
* approval pending

PULASTIC®

# gold

**Pro 180 Comfort**
**Elite Comfort 65**
**Elite Performance 65**
**Elite Advanced 65**
**Elite Classic 90**



Challenges | 2010

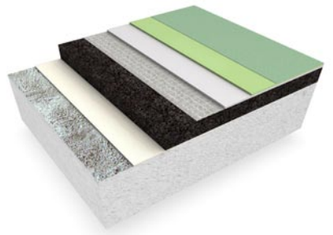


gold

**The Gold range** consists of mix-elastic, area-elastic and combi-elastic sports floor systems with a very high comfort level. It goes without saying that sports performance at a high level is also a major factor for these floor systems. By offering systems with a variety of performance characteristics, you can be sure that there is a perfect solution for every high-end facility, whatever its use.

## Pro 180 Comfort

gold line



**Specifications**

| | |
|---|---|
| Nominal thickness | 18 mm |
| Character | Mix-elastic |
| Classification (EN14904) | M3 |
| Comfort | ★★★★★ |
| Load-bearing capacity | ▲▲▲▲ |
| Ball bouncing | ⓘⓘⓘⓘⓘ |
| Options | ● Eco<br>○ FR |

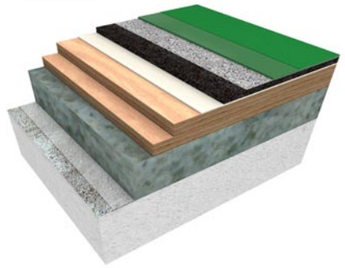
● standard
○ optional

PULASTIC®

gold

## Elite Comfort 65

gold line

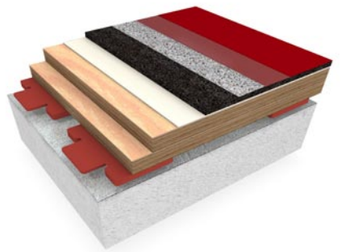


**Specifications**

| | |
|---|---|
| Nominal thickness | 54.5 mm |
| Character | Combi-elastic |
| Classification (EN14904) | C4 |
| Comfort | ★★★★ |
| Load-bearing capacity | ▲▲▲ |
| Ball bouncing | ⓘⓘⓘⓘ |
| Options | ● Eco |
| | ○ FR |

## Elite Performance 65

gold line

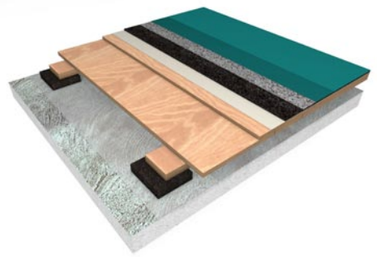


**Specifications**

| | |
|---|---|
| Nominal thickness | 41.5 mm |
| Character | Combi-elastic |
| Classification (EN14904) | C4 |
| Comfort | ★★★ |
| Load-bearing capacity | ▲▲▲▲ |
| Ball bouncing | ⓘⓘⓘⓘ |
| Options | ● Eco |
| | ○ FR |

## Elite Advanced 65

gold line



**Specifications**

| | |
|---|---|
| Nominal thickness | 65,5-100 mm |
| Character | Combi-elastic |
| Classification (EN14904) | C4* |
| Comfort | ★★★ |
| Load-bearing capacity | ▲▲▲ |
| Ball bouncing | ⓘⓘⓘ |
| Options | ● Eco |
| | ○ FR |

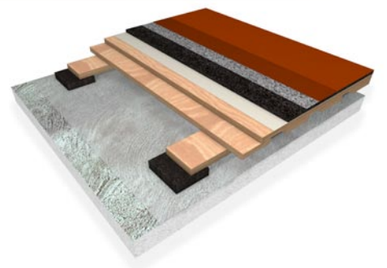
● standard
○ optional
* approval pending





## Elite Classic 90

gold line



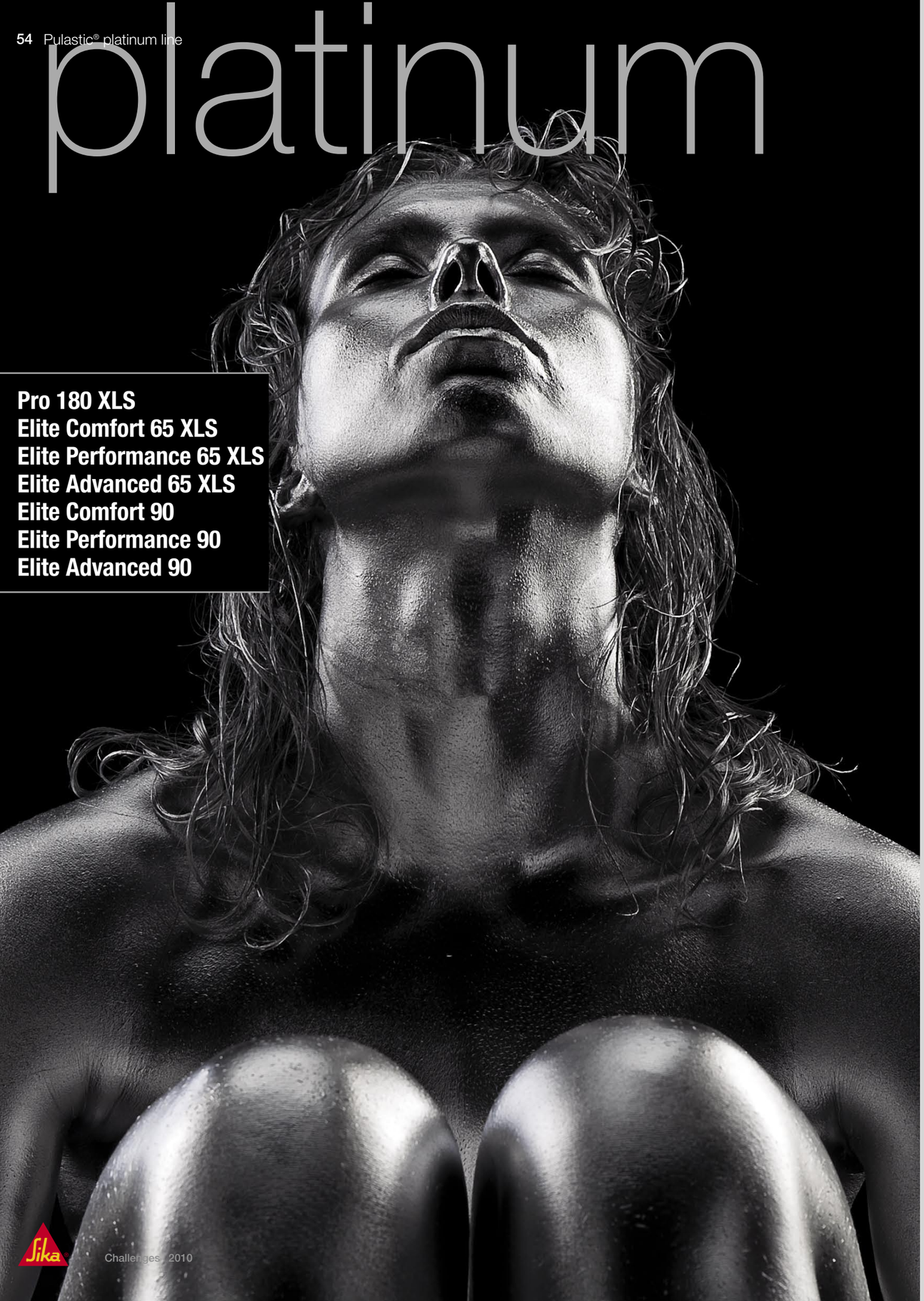
**Specifications**

| | |
|---|---|
| Nominal thickness | 77-100 mm |
| Character | Combi-elastic |
| Classification (EN14904) | C4* |
| Comfort | ★★★★★ |
| Load-bearing capacity | ▲▲ |
| Ball bouncing | ⓘⓘⓘ |
| Options | ● Eco |
| | ○ FR |

● standard
○ optional
* approval pending

PULASTIC®

# platinum



**Pro 180 XLS**
**Elite Comfort 65 XLS**
**Elite Performance 65 XLS**
**Elite Advanced 65 XLS**
**Elite Comfort 90**
**Elite Performance 90**
**Elite Advanced 90**



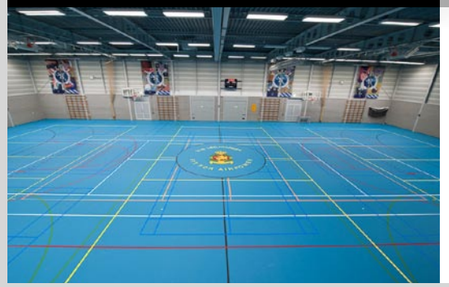


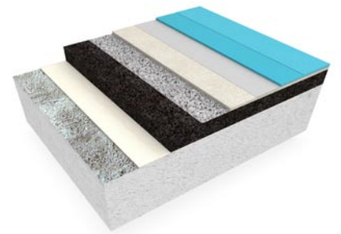
platinum

**The Platinum line** includes high-quality mixed-elastic, area-elastic and combi-elastic sports floor systems with very high comfort and safety levels, and special attention to durability and the ability to withstand very high mechanical stress. The Pulastic® Platinum range consists of floors capable of withstanding very high training intensities and competition performance at top levels. The Elite XLS systems include a hard polyurethane based top layer, making them suitable even for roller skating.

## Pro 180 XLS

platinum line





**Specifications**

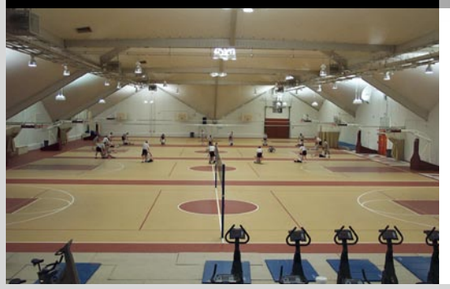
| | |
|---|---|
| Nominal thickness | 18 mm |
| Character | Mix-elastic |
| Classification (EN14904) | M3 |
| Comfort | ★★★★★ |
| Load-bearing capacity | ▲▲▲▲▲ |
| Ball bouncing | ⓘⓘⓘⓘⓘ |
| Options | ● Eco<br>○ FR |

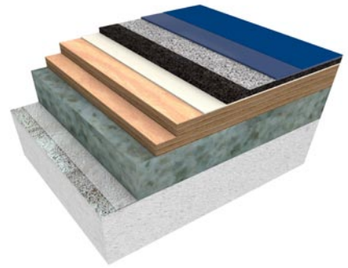
● standard
○ optional

platinum

## Elite Comfort 65 XLS

platinum line



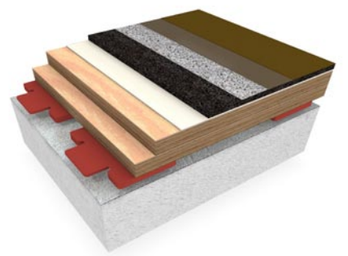


**Specifications**

| | |
|---|---|
| Nominal thickness | 54.5 mm |
| Character | Area-elastic |
| Classification (EN14904) | A4 |
| Comfort | ★★★★ |
| Load-bearing capacity | ▲▲▲▲ |
| Ball bouncing | ⓘⓘⓘⓘ |
| Options | ● Eco |
| | ○ FR |

## Elite Performance 65 XLS

platinum line

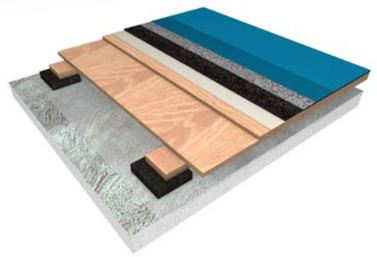


**Specifications**

| | |
|---|---|
| Nominal thickness | 41.5 mm |
| Character | Area-elastic |
| Classification (EN14904) | A4 |
| Comfort | ★★★ |
| Load-bearing capacity | ▲▲▲▲▲ |
| Ball bouncing | ⓘⓘⓘⓘ |
| Options | ● Eco |
| | ○ FR |

## Elite Advanced 65 XLS

platinum line

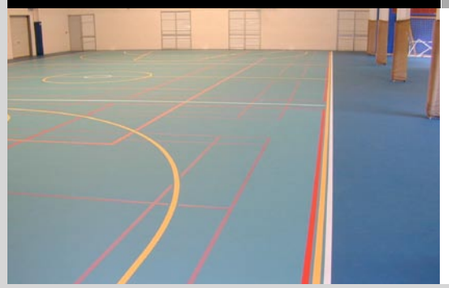


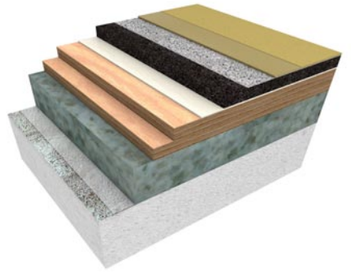
**Specifications**

| | |
|---|---|
| Nominal thickness | 65,5-100 mm |
| Character | Area-elastic |
| Classification (EN14904) | A4* |
| Comfort | ★★★ |
| Load-bearing capacity | ▲▲▲▲ |
| Ball bouncing | ⓘⓘⓘ |
| Options | ● Eco |
| | ○ FR |

## Elite Comfort 90

platinum line



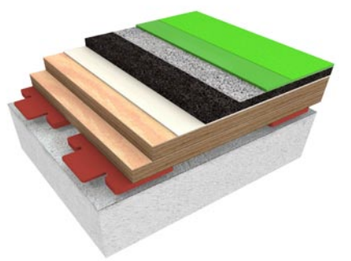


**Specifications**

| | |
|---|---|
| Nominal thickness | 57 mm |
| Character | Combi-elastic |
| Classification (EN14904) | C4 |
| Comfort | ★★★★★ |
| Load-bearing capacity | ▲▲▲ |
| Ball bouncing | ⓘⓘⓘⓘ |
| Options | ● Eco |
| | ○ FR |

## Elite Performance 90

platinum line

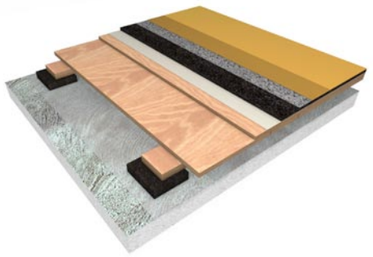


**Specifications**

| | |
|---|---|
| Nominal thickness | 44 mm |
| Character | Combi-elastic |
| Classification (EN14904) | C4 |
| Comfort | ★★★★★ |
| Load-bearing capacity | ▲▲▲▲ |
| Ball bouncing | ⓘⓘⓘⓘ |
| Options | ● Eco |
| | ○ FR |

## Elite Advanced 90

platinum line



**Specifications**

| | |
|---|---|
| Nominal thickness | 68-100 mm |
| Character | Combi-elastic |
| Classification (EN14904) | C4* |
| Comfort | ★★★★★ |
| Load-bearing capacity | ▲▲▲ |
| Ball bouncing | ⓘⓘⓘ |
| Options | ● Eco |
| | ○ FR |

● standard
○ optional
* approval pending

● standard
○ optional
* approval pending

# performance

**GT 100**
**SP Track 160**
**Comfort Court**

**In addition to multifunctional sports floors,** Descol also offers solutions for specific sports, such as tennis, athletics (including the use of spikes) and resistance training using free weights. A long-cherished wish to also be able to enjoy the comfort and superior quality of Pulastic® sports floors outdoor, can now be achieved with our Comfort Court.

## GT 100

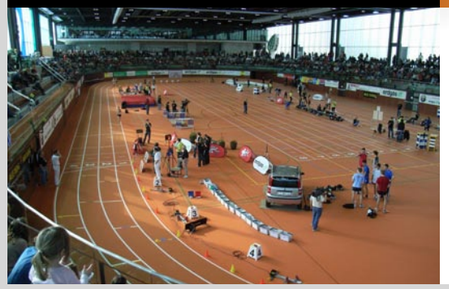
performance line

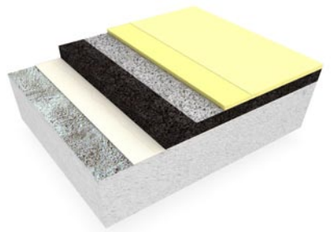
**Specifications**

| | |
|---|---|
| Nominal thickness | 10 mm |
| Character | Point-elastic |
| Comfort | ★★★★★ |
| Load-bearing capacity | ▲▲▲▲▲ |
| Application | Fitness<br>Dumbbells |
| Options | ○ Deco |

## SP Track 160

performance line





**Specifications**

| | |
|---|---|
| Nominal thickness | 16 mm |
| Character | Point-elastic |
| Classification (EN14904) | P2 |
| Classification (EN14877) | Indoor Athletics |
| Comfort | ★★★★★ |
| Load-bearing capacity | ▲▲▲▲▲ |
| Ball bouncing | ⓧⓧⓧⓧⓧ |
| Application | Indoor athletics using spikes |

N.B. Complies with IAAF Technical Requirements

## Comfort Court

performance line

**Specifications**

| | |
|---|---|
| Nominal thickness | 5 mm |
| Character | Point-elastic |
| Comfort | ★★★★ |
| Load-bearing capacity | ▲▲▲▲ |
| Application | Multifunctional outdoor sports<br>Indoor & outdoor tennis floor |
| Options | ○ Tennis coating |

● standard
○ optional

PULASTIC®

# facelift

**FL Basic**
**FL Eco**
**FL Extra**





**After many years of use,** seamless sports floors can be renovated. For the solutions offered by Descol, please consult our Facelift programme. Facelifting ensures that the floor not only performs, but also looks like a new one. Facelifting also offers the opportunity to adapt the colour and/or line marking of the floor. For existing Pulastic® floors with superficial wear, the Basic treatment can be used. In the case of more serious signs of wear and the wish of sustainable upgrading, choose the Eco version. The Extra option offers increased mechanical strength for a greater diversity of polyurethane floors with serious signs of wear.

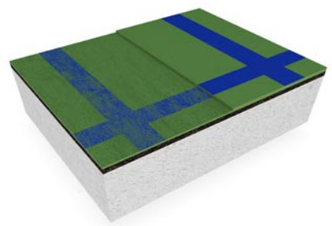
## facelift line

Before facelift

During facelift

After facelift

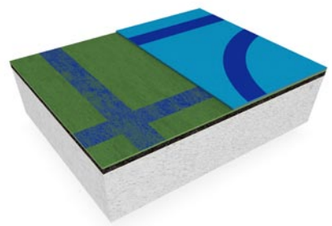
## FL Basic



**Specifications**

| | |
|---|---|
| Nominal thickness | 0,5 mm |
| Classification | - |
| Load-bearing capacity | ▲▲▲ |
| Application | Surface renovation |
| Options | ○ Reinforcement fabric<br>○ 1 mm thickness |

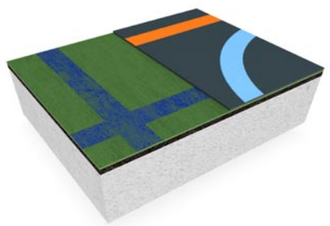
## FL Eco



**Specifications**

| | |
|---|---|
| Nominal thickness | 1 mm |
| Classification | AgBB |
| Load-bearing capacity | ▲▲▲▲ |
| Application | Top layer renovation |
| Options | ○ Reinforcement fabric<br>○ FR |

## FL Extra



**Specifications**

| | |
|---|---|
| Nominal thickness | 1 mm |
| Classification | AgBB |
| Load-bearing capacity | ▲▲▲▲▲ |
| Application | Top layer renovation and strengthening |
| Options | ○ Reinforcement fabric |

● standard
○ optional

PULASTIC®

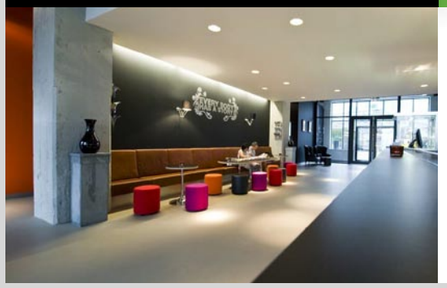
# solid

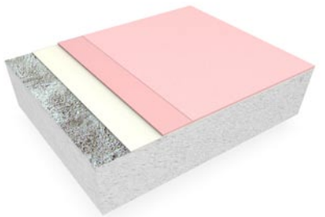
**Solidfloor**
**Comfortfloor**
**Acoustifloor**

**Sports facilities** consist not only of a sports floor, but also of a variety of other public rooms.
To achieve an attractive unity, while benefiting from the basic characteristics of a Pulastic® floor, there is the option to select solutions from our Solidfloor range. If you select the Deco option, coloured chips will be included in the top layer, creating a colourful and decorative appearance.

## Solidfloor

solid line



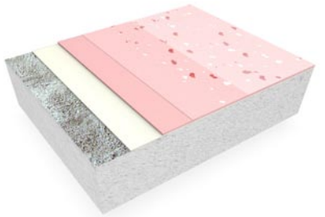


**Specifications**

| | |
|---|---|
| Nominal thickness | 2 mm |
| Character | Hard |
| Classification | - |
| Comfort | ★ |
| Load-bearing capacity | ▲▲▲▲ |
| Application | Storage room, transport zone (heavy duty) |
| Options | ○ Deco |

## Comfortfloor

solid line



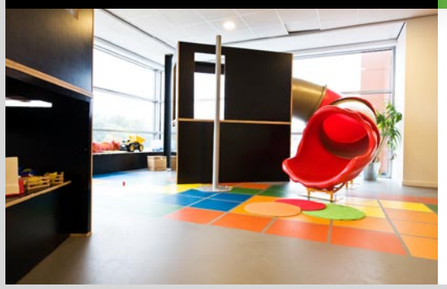
**Specifications**

| | |
|---|---|
| Nominal thickness | 2 mm |
| Character | Elastic |
| Classification | AgBB |
| Comfort | ★★★ |
| Load-bearing capacity | ▲▲▲ |
| Application | Transport zones and public rooms |
| Options | ● Eco<br>○ Deco<br>○ FR |

* version shown includes Deco option.

## Acoustifloor

solid line



**Specifications**

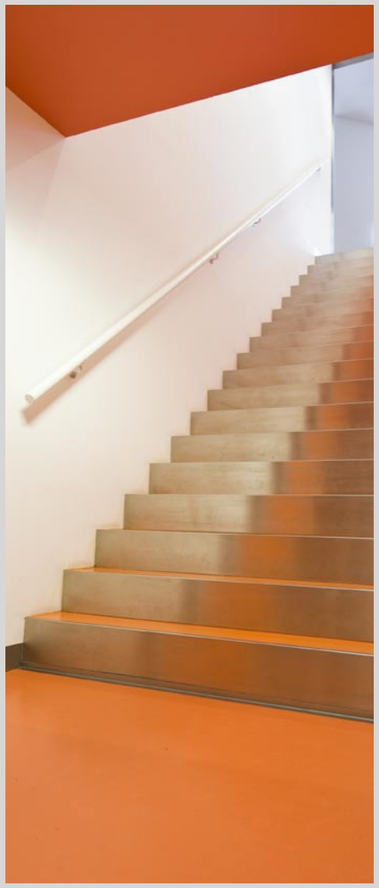
| | |
|---|---|
| Nominal thickness | 6 mm |
| Character | Sound proofing |
| Classification | AgBB |
| Comfort | ★★★★★ |
| Load-bearing capacity | ▲▲▲ |
| Application | Transport zones and public rooms (with sound proofing requirements) |
| Options | ● Eco<br>○ Deco<br>○ FR |

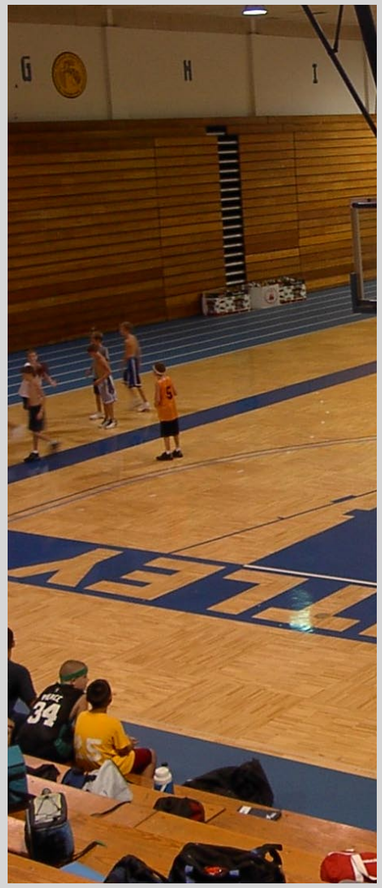
● standard
○ optional

# custom line



**If our standard range of floors** does not offer the exact solution you need, you have still come to the right address, because a floor from the Pulastic® Custom line always suits your purpose. Our range allows you to create, together with our technical consultants, a floor that meets your specific needs. Our experts can build on more than 45 years of worldwide experience and are more than willing to share this experience with you. For Descol your wishes and requirements are a challenge.

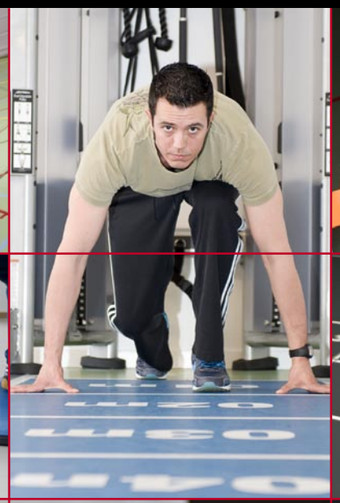


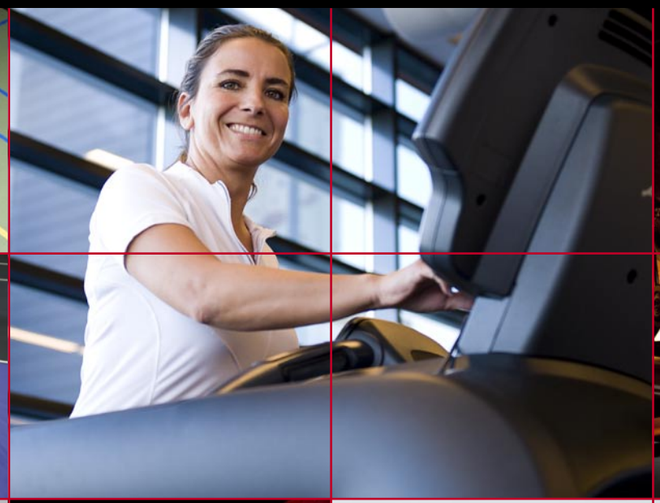


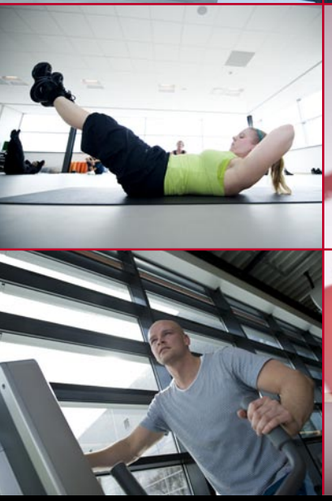
*Cannon Design from Vancouver has designed many prestigious sports locations around the world. Cannon's architect Larry Podhora says: "Cannon Design has designed many prestigious sport venues in North America and overseas. We have worked regularly with Pulastic floors in our designs and have come to appreciate both the product and the people at Descol. In the challenging project to design the Richmond Olympic Oval we were faced with very unique design challenges involving legacy sport surfacing change flexibility. We have found the Descol people open to new ideas that would essentially re-invent their product line. Descol's considerable technical experience and expertise in applied fluid sport flooring was brought to bear on the specific challenges presented by the Olympic Oval and the ideas that the Descol experts brought forward were innovative, transformative and practical. Our dealings with Descol have always been marked by mutual respect and project specific focus. We have found Descol's innovative approach ideal for a design and build approach in this particular project but they are equally responsive and responsible in more conventional projects. Descol has offered consultancy, custom made samples and reference project visits to help us fulfill our mission to deliver a unique solution to all of our customers and their specific project needs."*

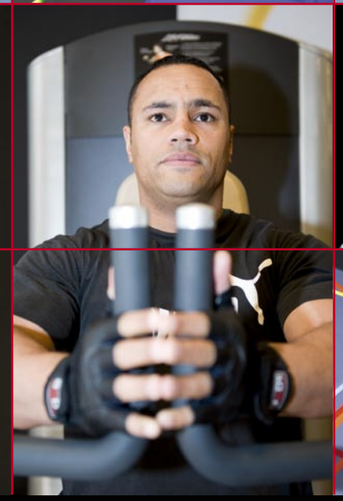
PULASTIC®

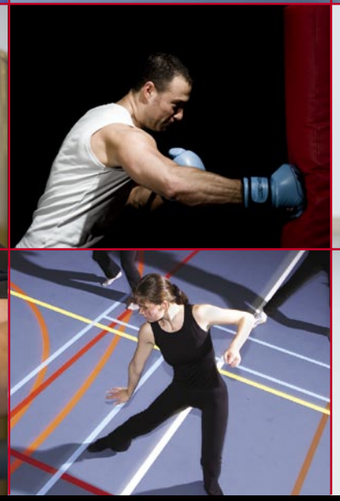
# Sports brings people toge ther, inspires, challenges

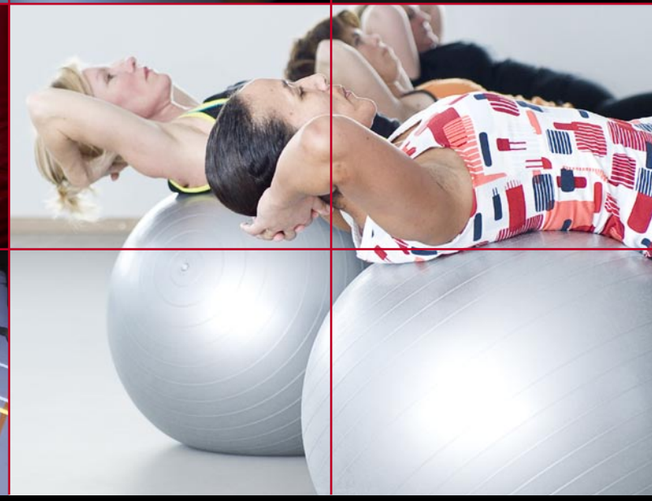












## What would a world without sports be?