

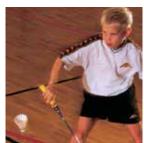
BOFLEX SPORTS FLOOR







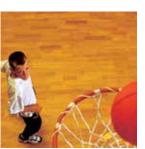
















## THE PLEASURE OF SPORT

Natural development through games and sport gives a deep feeling of accomplishment. No matter what the age or degree of fitness - physical activity adds value to life.

More and more of such activity takes place indoors. This means that nearly every town, village or hamlet has some form of sports facility or a place where it is possible to engage in games, sport or play. Sports venues are found in

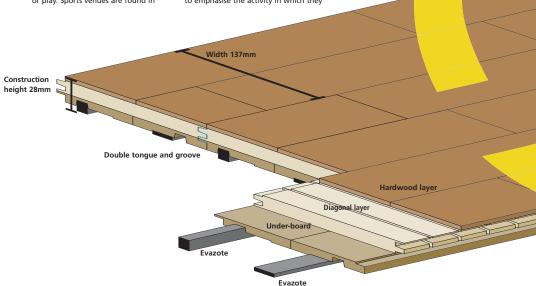
differing sizes and standards, with a wide variety of equipment and facilities. But there is one thing they have in common and that is that they all have a floor.

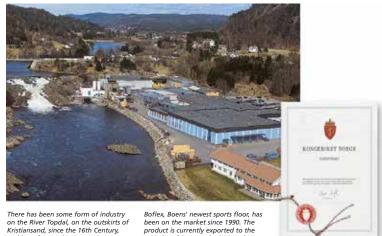
The floor is the most important part of any sporting facility - everything is focused on or around the floor. This is why the choice of floor is so important. This choice isn't easy - everyone wishes to emphasise the activity in which they

are personally most interested. The question is whether there is a sports floor that suits all the various activities?

In this brochure you will see what a number of people chose and what they now think of their choice. Read and judge for yourself.

Happy reading!



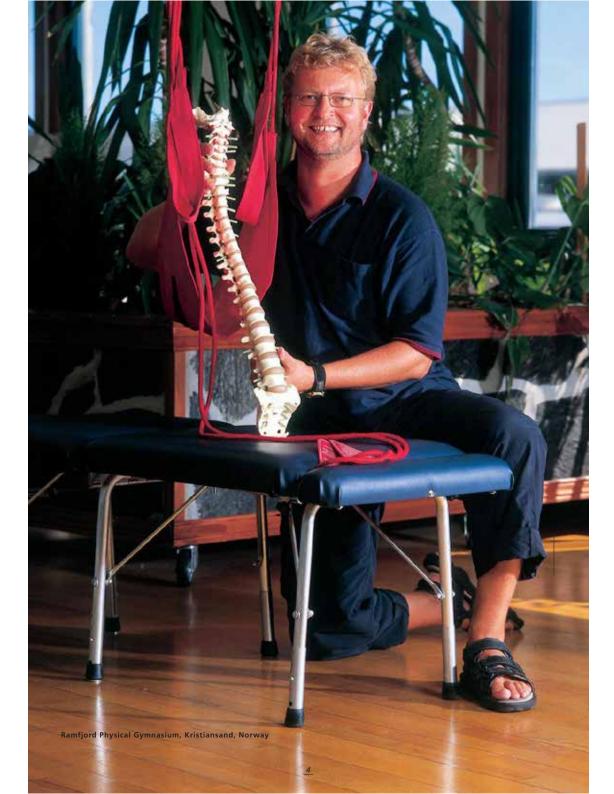


and here for nearly 40 years Boen Parkett has been developing and manufacturing sports floors.

majority of Europe, the USA and parts of the Far East.







# "Boflex leads to more effective training and prevents injury"

"Our gymnasium on the outskirts of Kristiansand in the South of Norway is a combination of a physiotherapy treatment centre and training gym. It is hectic from early morning to late evening with such activities as aerobics, jazz-ballet, children's dance, training for the elderly, apparatus training etc. In addition to the training facilities for fit and healthy people we also undertake the re-training of people following surgery, e.g. after hip and back operations. There are also training programmes for people with physical disabilities. After installing Boflex about 7-8 years ago, we have not had a single classic strain injury! This is quite sensational. The symptoms of the classic strain injury is pain in the foot, ankle, leg, knee or hip. A person's ability to absorb pressure lies in the anatomical capabilities of the body – these are helped greatly by this type of floor construction. The best proof of this is the feed-back we get from the participants in our aerobic classes and their instructors. These are generally very fastidious users. As a rule they are very active and have tried various types of floor, under-lays and facilities. Speaking personally and as an expert, I would emphasise that Boflex gives good shock-absorption combined with a high degree of stability. I am impressed that the performance of the floor is constant even when used by numerous people at the same time. Besides which, the floor can be used for various activities simultaneously. In relation to the environment, good health and appearance, parquet is superior to all other floor coverings."

Physiotherapist Ole Petter Ramfjord

## SHOCK-ABSORPTION

### SHOCK-ABSORPTION

The patented Boflex system, with built-in shock-absorption in the parquet, is as well suited for children's activities as it is for withstanding the weight of a heavy grandstand.



EVAZOTE 50 (etylen-vinyl-acetat)
This material is a cross-linked, closed cell system (Layers not laid parallel).
Evazote 50 is manufactured without the use of environmentally hazardous gases.
The shock-absorption material can only be compressed to a maximum of 50% - this means that a Boflex

only be compressed to a maximum of 50% - this means that a Boflex floor can never be over-loaded. This construction can withstand an almost unlimited load. Even heavy vehicles can drive in and out without any detriment to the floor.

## UNLOADED



The parquet rests on each alternate Evazote strip.

## LIGHTLY LOADED



The parquet rests on each alternate Evazote strip.

### NORMAL LOAD



Whether all or alternate Evazote strips are under restrain is dependant on the type of sport.

## **HEAVY LOADS**



The way in which the Evazote is constructed means that it can never be compressed more than 50%. The floor can withstand several tons of pressure without any damage being done.



# "Boflex isn't just beautiful to look at, it is also economical"

"When we were presented with the task of designing the new sports complex at The University of East Anglia there were a number of requirements that had to be satisfied. The client wanted a wood floor that would withstand the use of portable bleacher seating without the need for any additional protection. Besides this, the floor had to be easy to maintain and suitable for sport and exhibitions. We had looked at a number of floors with the client at various locations in England, some of which were showing signs of deterioration through poor workmanship. After discussing the project and our requirements with Boflex, we travelled to Norway to look at the National Basketball Centre in Oslo. There a Boflex floor has been in use for sport and other events for over 5 years and is frequently covered by mechanically operated mobile grandstands. The test results for this type of floor fall well within the DIN-norm requirements and this particular floor still looks very good, with excellent ball-bounce and shock-absorption. Besides this, we saw no sign of cracks forming due to shrinkage, a problem that has been very common in England. We were impressed by what we saw and had no hesitation in specifying a Boflex Sports-floor.

The floor has proven to be an economically profitable investment.

The simple method of laying the floor meant that this was done in the minimum time. Maintenance costs are very low and as the floor can be used for a number of various activities the sports complex is in constant use and gives the owner a good source of income"

Architect Paul Wells

## FUNCTIONAL REQUIREMENTS

There are a number of demands made on a sports floor – they can vary slightly from country to country but, generally speaking, the German DIN standard is a good quideline.

Requirement	Boflex P1	Additional Information
Minimum 53%	61%	This means that 61% of the force is absorbed.
Minimum 2,3mm	2,8mm	A given test-load is dropped from a given height. The floor deflected 2,8mm.
0,40 - 0,65	0,59	The requirement for friction co-efficiency ranges from 0,45 to 0,70. This is a compromise to suit various sports. N.B. Low friction co-efficiency = "smooth" surface.
Minimum 90%	94%	Ball bounce indicates how high the ball rebounds when dropped from a given height. (Concrete = 100%).
Minimum 1,500N	>1,500 N	The construction of the floor satisfies the 1,500 requirement.
	Minimum 53% Minimum 2,3mm 0,40 - 0,65  Minimum 90% Minimum	Minimum 53% 61% 53% 2,8mm 2,8mm 2,3mm 0,40 - 0,65 0,59 Minimum 90% 94% Minimum

### SURFACE

Boen has developed an advanced method of planing which we call the

In contrast to other manufacturers of pre-finished hardwood flooring, we mill the tongue and groove after lacquering. Each board then acquires a sharp edge and the floor when laid does not have visible joints. Boen is the market leader with such a product and is therefore able to deliver a product at the top of its class in the world of parquet.

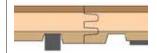
### ORDINARY MILLING





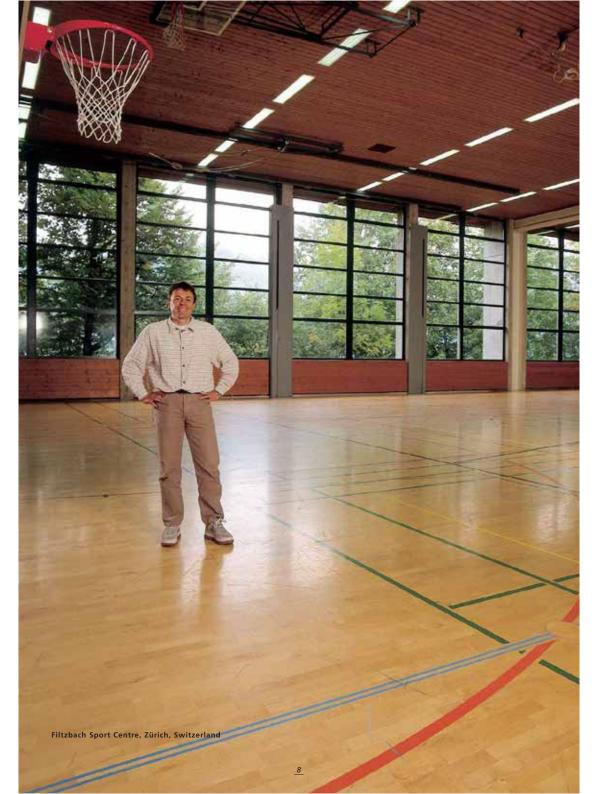
## CONNEXPROCESS





## BOEN CRYSTAL ULTRA LACQUER

During production, the Boflex Sports Floor is given 6 coats of UV hardened lacquer. These are made up of an impregnating layer, a layer of pore-filling primer, 2 coats of strong primer and 2 layers of top coat. After installation and in the case of track-marking, the floor must be re-finished. We recommend 2 coats of Boen Ultra Sports Lacquer. Our factory lacquer gives an excellent foundation for track marking and the additional layers of lacquer.



## "When it is a matter of flexibility, nothing beats Boflex"

"At the Filtzbarch Sport Centre in Zurich, Switzerland, numerous types of indoor activities take place – from all kinds of ball sport, gymnastics and aerobics to use by wheelchair users and disabled sports persons. So, when we were in the process of choosing a floor, it was flexibility that was the deciding factor. We needed a floor where we could quickly change from one type of sport to another, which would include practical apparatus fittings and casings along with clear track-marking. In addition, we wished for a floor which was equally suitable for children's activities as for adult sports. Previously, we had a point elastic floor installed in the sports centre. For practical reasons, we wanted to avoid dismantling the old floor, which of course meant that the new floor would have to satisfy a number of requirements. It was not just a matter of finding a floor with good sporting properties, but also a floor which was suitable for installation as a renovation object. The new floor had to have low construction height and be suitable for installing directly on the original point elastic floor. With the Boflex Sports Floor we found what we were looking for. Right from the beginning, we have only received positive feedback from sports persons and trainers alike."

Manager Walter Hofmann

## SURFACE ELASTIC FLOORING IS MORE SUITABLE FOR MULTIPLE SPORTING ACTIVITIES THAN OTHER TYPES OF FLOOR.

















Covers for the fittings to hold goal posts, gymnastic equipment etc. Available in a variety of

sizes. Can be quickly and easily lifted or replaced.

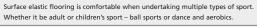












	Boflex P1	Combi-Elastic	Point-Elastic
Exhibitions, concerts	••••	••	••
Mobile grandstands	••••	••	••
Wheelchair users	••••	••	••
Handball	••••	•••	••
Basket ball	••••	•••	••
Volley ball	•••	••••	••
Football	••••	•••	••
Indoor Bandy	••••	•••	••
Table tennis	••••	•••	••
Gymnastics	•••	••••	•••

•••• Very well suited ••• Well suited •• Suitable • Unsuitable

## RENOVATION

Due to its extremely low building height it is well suited for renovation purposes. The patented yielding-system works very well when installed on old sports flooring, whether it be point



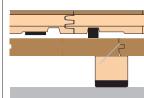
Directly installed on a sub-floor e.g. concrete. Shock-absorption: 61%



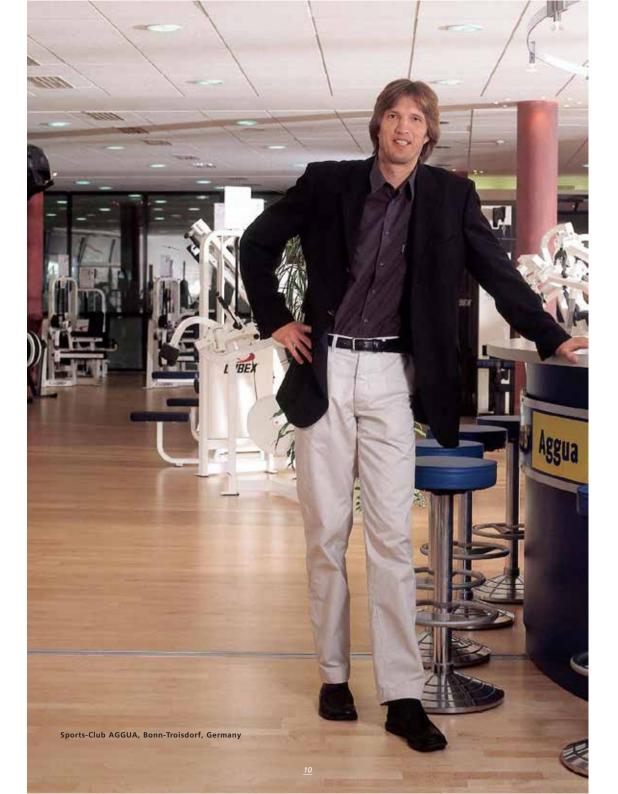
or surface elastic.



Directly installed on an old point elastic covering Installed on a 7+2mm point elastic floor, Shock-absorption: 60%



Directly installed on an old surface elastic floor, solid wood. Double joists, 22mm solid wood Shock-absorption: 69%



## "A good sporting performance is even better with good support"

"Due to my own extensive experience within sport I wanted to give my customers the best. This is why I chose Boflex for my premises. With the woods natural radiance in the aerobics studios, training studios and offices there was an intimate and pleasant atmosphere everywhere, whilst at the same time incorporating the necessary advantages of the surface elastic floor. As we need to clean the floor 1-3 times daily, Boflex satisfies our needs with the very well thought out ConneXProcess, which means that we avoid dirt in the joints. Also the fact that the floor is very quick to install was an important argument as to why I chose Boflex over solid wood flooring – we avoided having to close the studio for several days whilst installing the new floor. Instead, Boflex Sports Floor was finished in just a few hours. When we look at the result and hear our customers positive feed-back, I would say that this was a profitable

moisture content which is the equivalent of furniture wood. This must be taken into account when installing the floor. All windows and doors must be in place and all moisture generating work completed well

and ventilated, at least 8 weeks before

Our special adhesive is included in all orders and it is this adhesive alone that must be used for the installation of Boflex.

## SIMPLE AND PROFESSIONAL INSTALLATION EQUIPMENT

installation equipment that ensures the correct application of adhesive and effective installation of the

trolley/rack, pressure tank for the adhesive, hose including adhesive pistol, mouth-piece/nozzle, compressor, 2 tapping blocks, crowbar for end and edge completion.

The distance between the floor and walls/ columns is calculated at 1.5mm per metre width distributed on both sides, eg. to calculate the distance from the wall in a 24 metre wide gymnasium:

 $\frac{1.5 \times 24}{1.5 \times 24}$  = 18mm on each side

Boflex is installed directly on top of the existing floor or sub-floor.

The sub-floor must be stable, self-

metre radius. If the sub-floor does not satisfy these requirements it will

be necessary to make adjustments,

buildings: 2 layers of 0,2mm plastic

Boflex extra vapour protection but is

The relative moisture content of the

sub-floor must be less than 90%. Where concrete is concerned it is

necessary to measure the moisture

at points a minimum of 10cm into the floor. Practical experience has shown that newly laid concrete

minimum of 8 weeks prior to the

DISTANCE TO WALLS/ COLUMNS

floors should be dried for a

installation of Boflex.

membrane, which is taped at the joints, must be laid over the sub-

floor prior to the installation of Boflex. The plastic membrane gives

not a moisture barrier for the concrete/ base floor.

either by planing or filling in. Special requirement for new

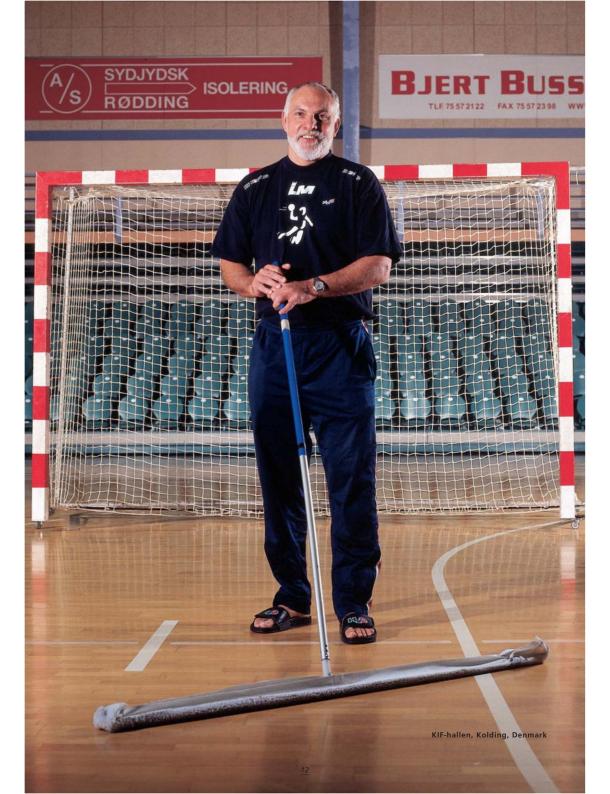
supporting and level. The maximum permitted deviation is 2mm per 2

SUB-FLOOR REQUIREMENTS

The skirting boards should be fastened to the wall only, so as not to impede the movement of the floor. T-mouldings should only be fastened to the existing floor. NB! Remember that Boflex is a free floating floor and must remain free floating.

Boen has developed special

The equipment consists of: a folding



# "Parquet is easily maintained – a pleasure to work on"

Karsten Pedersen is the governing inspector at a major handball facility—the home-ground of the handball club in Kolding, Denmark. This sports complex was the main arena for Denmark's group-matches in the 2000 Handball World Championships—where the Danish "Ladies of Iron" ruled and wiped all other countries off the court. The arena is in continual use for major events.

"An important part of my job is to see that everything functions as it should, at all times. This includes all the equipment, power, water etc. and, of course, the floor. Correct use and cleaning are the key-words. It is a large area of parquet flooring that has to be washed, but our cleaning machine makes the task simple. Any surface damage can be easily repaired, and re-finishing is seldom necessary. Boen's team of experts have been of great help to me, giving good advice and guidance on all relevant matters. In my work as inspector, the total package was very important and I couldn't be more satisfied.!"

Hall-inspector Karsten Pedersen

## MAINTAINING BOFLEX SPORTS FLOOR

Like all sports floors it is important that a new Boflex floor is maintained in accordance with the amount of wear and tear to which it is exposed in normal use. Since this varies from location, it is impossible to give instructions that suit all purposes. However, below we have presented a number of control with the property of the property with the property of the property with the property of the property of

below we have presente	below we have presented a number of general guidelines.		
Preventative measures	Provide adequate areas at entrance doors of the building for the wiping and drying of footwear. Sports persons must not use shoes with black rubber soles. Equipment etc. in the sports complex should be fitted with felt protectors.		
Daily maintenance	The floor should be moped with a dry mop and/or vacuum cleaner. Wash with water containing a recognised parquet-cleaning agent.		
Weekly maintenance (or as required)	When washing the floor with a mop, it must be well rung out. However, if using a cleaning machine, it is essential to ensure that the machine uses only soft brushes. The machine must be of the type that sucks up any water immediately.  NB: USE WATER WITH GREAT CARE!!		
Marks and removal of wax	Marks that are impossible to remove with normal washing, such as wax and friction marks etc. can be removed simply with the use of a cloth moistened in White Spirit. Rub the mark carefully until it disappears, then wash with clean water to remove any residue of White Spirit. Extremely stubborn marks e.g. lumps of wax, should be carefully scraped off using a plastic filler spatula. This job must be done carefully so as not to wear through the lacquer.		
Re-finishing	Re-finishing needs to be carried out if there are any signs of the following: Wear on the track-markings. Wear in heavily used areas, e.g. goal areas, the 6 metre area in handball etc. It is a good idea to apply lacquer with a small brush in and around handball goal aeras as required. Ideally, wear around entrance doors should be re-finished before the need arises.		

### MAINTENANCE

## DECADES OF EXPERIENCE

Since Boen started manufacturing parquet in the 1960's we have also been concerned with its care and maintenance. We have tested numerous types of lacquer and maintenance products – time and time again. In other words, we have called on all our experience before introducing the Boen Ultra Range. It includes everything you need for the care and maintenance of both new and existing floors. These are high quality products that give durable, beautiful and functional floors for many years to come.

BOEN ULTRA

## SPORTS LACQUER



## **BOEN ULTRA SPORTS LACQUER**

is a single component, water based, polyurethane lacquer specially developed for sporting facilities with parquet flooring. The lacquer gives a strong and lasting surface. The friction coefficient is 0.59. The lacquer is environmentally friendly and does not generate any harmful gases.

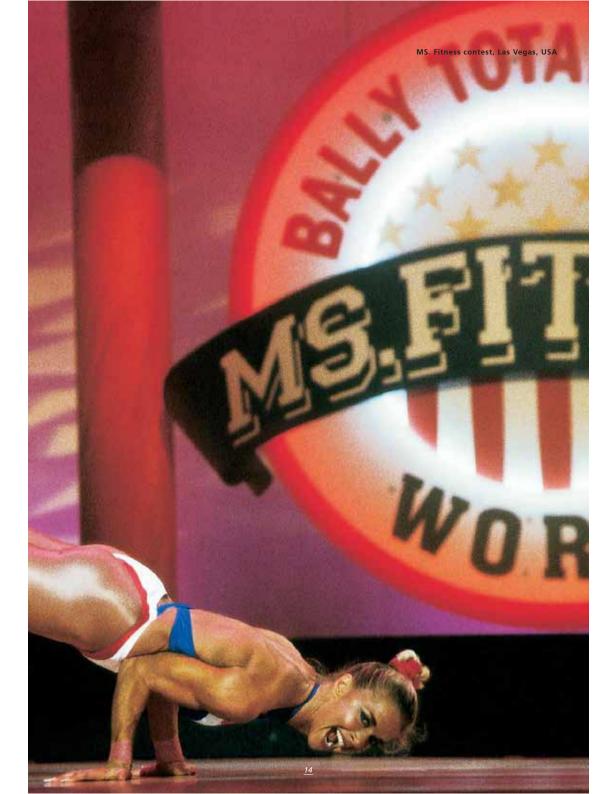
BOEN ULTRA

## SPORTS WASH



## BOEN ULTRA SPORTS WASH

is a strong, water based alkaline cleaning agent – for the removal of friction marks, handball wax, dirt etc. Boen Ultra Sports Wash gives gentle and correct cleaning, even when used with a cleaning machine. Boen Ultra Sports Wash is supplied in a concentrated form and is very economical.



## The ultimate aerobics floor!

"I have had the opportunity to work on both the distribution and the club management! development side of the fitness industry. I was introduced to the Boflex Aerobics Floor System by Centaur Floor Systems (Distributor of Boflex in the U.S.) several years ago This product has shown to be the finest Aerobics Hardwood Floor System I have encountered. It provides safety, comfort and performance required in a heavy use aerobics facility. In our new downtown Colorado Springs facility the choice was easy in determining that Boflex was the finest aerobics floor our money could buy."

Managing Partner World's Gym, Mike McNeese

"I have been involved in the building and development of over 100 athletic fitness facilities world wide. I've had the opportunity to be full general contractor in building over 30 Family Fitness Facilities (now 24 Hour Fitness) as well as facilities for the California Fitness Centers. I have seen the evolution from the basic Sleeper Hardwood Floors through to the U.S. versions of D.I.N safety approved systems but nothing has matched the ease of installation, long term aesthetic value and high performancel safety of the D.I.N. certified Boflex Aerobic Floor."

### FNVIRONMENT

Boen Parkett manufactures environmentally friendly products where all the main components are based on natural and renewable sources. The company's aim is to avoid overloading nature and the external environment as much as possible. We accomplish this, by working in an active and determined manner.



The product's main components come from pure and renewable timber. The adhesive and lacquer, once hardened, are non-damaging to nature. While the product lasts for a life time it can be maintained in such a way that the wood's natural appearance and qualities are preserved.

A parquet floor is easy to clean and because of this, contributes to a clean, hygienic and dust-free interior climate. When the time finally comes for disposal of the product it can be used as bio fossil fuel.

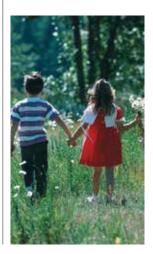
## TESTING SURFACE ELASTIC SPORTS FLOORING IN ORKLAHALLEN

I 1993 we delivered the worlds largest floating floor, a total 2.400m2 installed at Orkanger in Norway. We decided that we would follow this floor closely and study its' shock-absorption properties over the coming years. We instructed The Norwegian Institute of Building Research to carry out regular tests. The first measurements taken in 1993 were from specific points on the floors surface. Subsequent measurements have been taken from the identical points where these first tests were carried out.

		RESULTS			
Test Point	Results 1993	Results 1995	Results 1998	Results 2001	
1	57%	58%	58%	55%	Ī
2	59%	59%	61%	61%	
3	61%	59%	59%	57%	
4	60%	60%	61%	63%	
5	60%	61%	59%	58%	
6	61%	59%	59%	56%	
7	57%	58%	56%	54%	
Average	60%	60%	59%	58%	

After studying the results shown on the above table one can ascertain that the floors yielding properties, have in practice, remained unchanged since being installed.

The small variations can be put down to technical testing conditions



## REFERENCES

Boen Boflex is already in use in sports arenas and training studios throughout the World. We have a well-established network of representatives in all major markets.

GE			

ERNST-BARLACH-SHULE	Güstrow	Multi-purpose	600 m <sup>2</sup>	1993
TMM	München	Dancing school	177 m²	1995
GRUNDUND HAUPTSCHULE	Wacken	Multi-purpose	1064 m²	1997
LUFTHANSA	Hamburg	Gymnastik	310 m <sup>2</sup>	1998
SPORTSHALLE	Harbke	Multi-purpose	1100 m <sup>2</sup>	1999

## SWITZERLAND

SCHULHAUS BUCHEN	Thal Sg	Multi-purpose	1100 m²	1995
SPORTZENTRUM KT. ZÜRICH	Filzbach	Multi-purpose	860+600 m <sup>2</sup>	94/96
STUDIO BANANE	Winterthur	Aerobics	320 m <sup>2</sup>	1997
BLUE SHUTTLE BADMINTON	Uster	Badminton	870 m <sup>2</sup>	1998
IMMAGINATIVE BEWEGUNGSPÄD.	Uster	Therapie	170 m <sup>2</sup>	2000

## NORWAY

Ø	VREBØHALLEN	Kristiansand	Multi-purpose	1191 m²	1991
R'	YKKINHALLEN	Oslo	Basketball	1650 m²	1993
S۱	/ALBARD HALLEN	Svalbard	Multi-purpose	1111 m²	1996
ΥI	NGLINGEN IDRETTSHALLEN	Stavanger	Multi-purpose	1200 m <sup>2</sup>	1998
ST	TUDENT IDRETTSHALL	Tromsø	Multi-purpose	800 m <sup>2</sup>	2001

## DENMARK

FLEMMING EFTERSKOLE	Flemming	Multi-purpose	981 m²	1995
KOLDING HALLEN	Kolding	Handball	1900 m <sup>2</sup>	1996
LYNGBY HALLEN	Lyngby	Multi-purpose	1043 m²	1997
FREDRIKSBERG BADMINTONHALL	Fredriksberg	Badminton	580 m <sup>2</sup>	1999
STADIONHALLERNE	Hadersley	Gymn and Multi-P	2200±1100m <sup>2</sup>	2001

### UK

EAST BERKS COLLEGE	Slough	Multi-purpose	500 m <sup>2</sup>	1995
SHOTTENMILL SCHOOL	Haslemere	Multi-purpose	220 m <sup>2</sup>	1996
THAMESMERE L.C.	London	Multi-purpose	250 m <sup>2</sup>	1997
UNIVERSITY OF EAST ANGLIA	Norwich	Multi-purpose	2100 m <sup>2</sup>	2000
NOTRE DAME HIGH SCHOOL	Liverpool	Multi-purpose	260 m <sup>2</sup>	2000

## USA

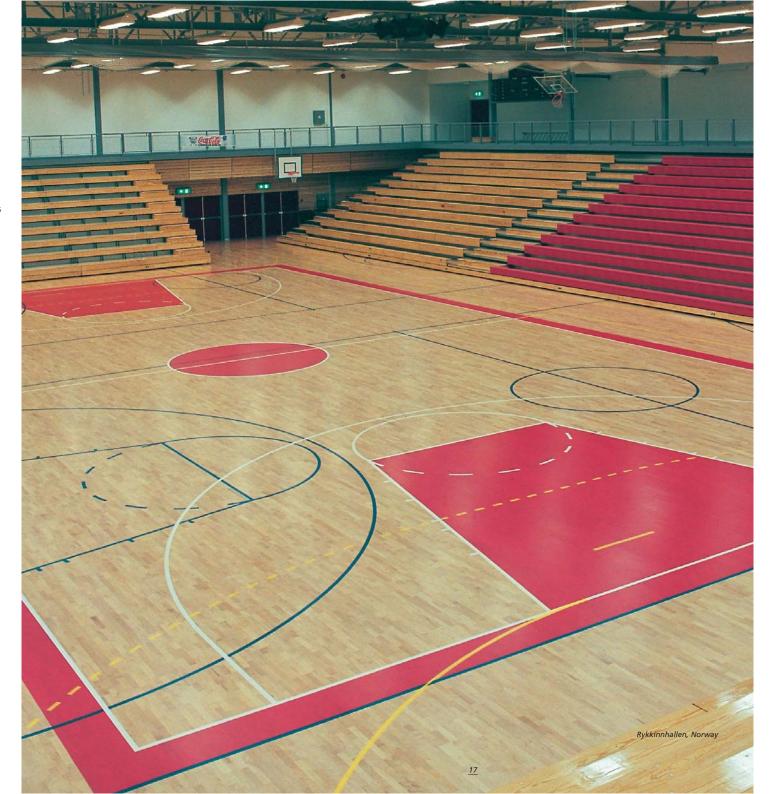
POWERHOUSE GYM	Dearborn Mich.	Aerobics	300 m <sup>2</sup>	1995
GOLD'S GYM	Venice, Ca	Aerobics	250 m <sup>2</sup>	1997
SANTA CLARITA ATHLETIC CLUB	Los Agees	Basketball	800 m <sup>2</sup>	1997
UNIVERSITY ILLINOIS	Decalb, III.	Aerobics	195 m²	1999
NASA RESEARCH CENTER	Cleveland, OH.	Aerobic	100 m <sup>2</sup>	2000

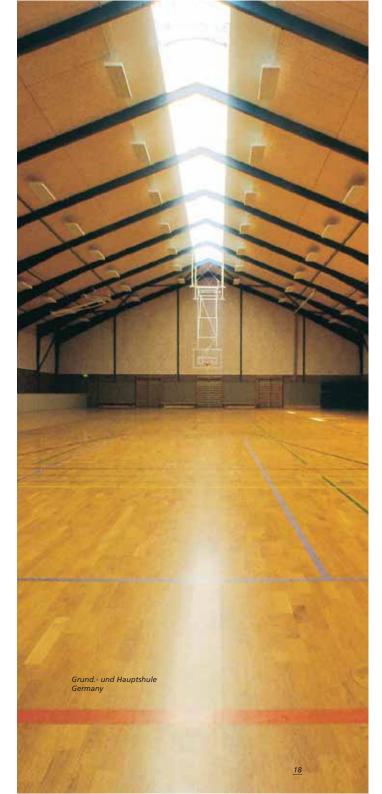


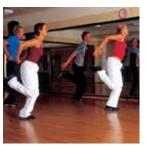
Santa Clarita, California, USA



Blue Shuttle Badminton, Switzerland







S.A.T.S., Norway



Institute of Sport, Finland



Austråtthallen, Norway



Holmes Place, Switzerland



Märstetten, Switzerland



Club Migua, Germany



Royal Carribiean Cruise Liners Voyager of the Seas, Finland



Sportshall Mechelen, Belgium

SWEDEN				
TORPAHALLEN	Jønkøping	Multi-purpose	250 m <sup>2</sup>	1993
ÅKERØHALLEN	Leksand	Multi-purpose	400 m <sup>2</sup>	1994
GRINFSUNDSHALLEN	Lyseksil	Multi-purpose	980 m²	1995
TENNISHALLEN	Alingsås	Aerobics	655 m²	1996
SOLLEBRUN	Alingsås	Multi-purpose	1000 m <sup>2</sup>	1997
FRANCE				
SCHOOL LONGEAU	Longeau	Multi-purpose	887 m²	1993
JEAN YOLE HALL	La roche sur yon	Multi-purpose	1730 m²	1994
CHARLTY HALL	Paris	Volleyball	1060 m <sup>2</sup>	1994
UNIVERSITY OF NANTES	Nantes	Classic dance	285 m²	1996
AUGUSTE DELAUNE HALL	lvry sur seine	Handball	990 m²	1997
FINLAND				
MARINE ACADEMY	Helsinki	Multi-purpose	290 m²	1996
INSTITUTE OF SPORTS	Vierumaki	Multi-purpose	1120 m <sup>2</sup>	93/98
ROYAL CARRIBEAN CRUICE LINERS	:			
	Voyager of the Seas	Fitness	165 m²	1999
	Explorer of the Seas	Fitness	165 m²	2000
	Adventure of the Seas	Fitness	170 m <sup>2</sup>	2001
BELGIUM				
SPORTSHALL LAAKDAL	Laakdal	Multi-purpose	1200 m <sup>2</sup>	1997
TENNISACADEMIE	Montsel	Squash	320 m <sup>2</sup>	1998

DEEGIOWI				
SPORTSHALL LAAKDAL	Laakdal	Multi-purpose	1200 m <sup>2</sup>	1997
TENNISACADEMIE	Montsel	Squash	320 m²	1998
SILOK	Deunne	Gymnastic	320 m²	1999
SPORTSHALL ST. PIETER	St. Guider	Multi-purpose	1050 m <sup>2</sup>	1999
SPORTSHALL MECHELEN	Mechelen	Multi-purpose	1500 m <sup>2</sup>	2000
ITALY				
SCUOLA MEDIA	Sarentino	Multi-purpose	88 m²	1999

ACTIVE FITNES	Codroipo	Multi-purpose	100 m <sup>2</sup>	2000
ISTITUTO TOMADINI	Udine	Basket-/ Volleyball	850 m <sup>2</sup>	2000
TOP DANCE	Pradamano	Proffesional Dance	300 m <sup>2</sup>	2000
PALESTRA ARTI MARZIALI	Trieste	Multi-purpose	300 m <sup>2</sup>	2000
HONG KONG				
HUNG HOM UC	Hong Kong	Aerobics	131 m²	1995
HONK KONG UNIVERSITY	Hong Kong	Dancing	180 m²	1995
CLUB HOUSE OF DAWNING VIEW	Hong Kong	Multi-purpose	300 m <sup>2</sup>	1999
CALIFORNIA FITNESS CENTRE	Hong Kong	Aerobics	250 m <sup>2</sup>	2000
CREAT EAGLE HOTEL	Hong Kong	Multi-purposo	150 m <sup>2</sup>	2001

GREAT EAGLE HOTEL	Hong Kong	wuru-purpose	130 111	2001
OTHERS				
DEP. HEALTH CLUB	Seoul	Aerobics	290 m <sup>2</sup>	1993
UNO HEALTH CLUB	Seoul	Aerobics	110 m <sup>2</sup>	1993
RAFFLES CALIFORNIA CLUB	Singapore	Aerobics	550 m <sup>2</sup>	1999
OREWA COLLEGE	Orewa, New Zealand	Multi-purpose	500 m <sup>2</sup>	1999
SEOUL CALIFORNIA CLUB	Korea	Aerobics	200 m <sup>2</sup>	2000
GALAXY CALIFORNIA CLUB	Taipei	Aerobics	560 m <sup>2</sup>	2000
LIBERTY CALIFORNIA CLUB	Bangkok	Aerobics	360 m <sup>2</sup>	2000
TONG LIN CALIFORNIA CLUB	Taipei	Aerobics	360 m <sup>2</sup>	2001
TT CALIFORNIA CLUB	Taipei	Aerobics	370 m <sup>2</sup>	2001
NEWLANS COLLEGE	Wellington, New Zealand	Multi-purpose	810 m <sup>2</sup>	2001
SHERATON TOWERS	Dubai.VAE	Fitness	280m <sup>2</sup>	2001

