Pavigym technical certifications

State-of-the-art technology, design and durability are the essence of Protective Comfort Group flooring and the Pavigym® brand.
Much more than just a floor, Pavigym defines space while enhancing sporting safety. The unique air flooring system retrieves the user's energy and helps them enjoy a healthier workout.

This document summarizes all relevant technical certifications of Pavigym floorings, with regards to biomechanical features, toxicity, biological interaction with the human body, and fire reaction.

Index

Biomechanical tests

A complete set of biomechanical tests have been carried out at the Biomechanical Institute of Valencia, an internationally recognized independent institution in Spain, who specialize in the field of biomechanics and sports research. Impact absorption has been tested with the objective to determine the level of strength reduction. Annex 4 contains all related information.

Indoor sport surfaces, European norm EN 14904:2006

Pavigym floorings have been tested under EN 14904, the new European norm for indoor sport surfaces. In the following table, all the results for Pavigym Aerobic 9 mm thickness are reported:

Norm, test type	Value
EN 14804, Force reduction [%]	45*
EN 14809, Vertical deformation [mm]	1.0
EN 13036-4, Friction coefficient	83
EN 5470-1, Abrasion resistance [mg]	99.4
EN 1516, Indentation resistance [mm]	0.4

Tab.1 EN 14904 test values.

* The "Force reduction" test is intended as an impact absorption test: the objective is to measure the amount of impact energy absorbed by the flooring by means of a force reduction measurement.

Toxicity and noxious substances

We have recently achieved the OEKO-TEX Class I label Nº 2008AN7644, for all Pavigym, Paviplay and Comfortgym products. The Oeko-Tex certificate, issued by the relevant institute or responsible certification centre, is valid for 12 months. It declares that the articles listed have been successfully tested according to Oeko-Tex Standard 100 and satisfy the requirements of a common product class.

The Oeko-Tex® Standard 100 is a global uniform testing and certification system for textile raw materials, intermediate, and end products at all stages of manufacturing. The tests for harmful substances comprises of substances which are prohibited or regulated by law, chemicals which are known to be harmful to health, and parameters which are included as a precautionary measure to safeguard health.

Even though Pavigym, Paviplay and Comfortgym are not textiles, and their function is not to develop a prolonged skin contact (like clothes, bed linens, etc.), we have tested all products under the most restrictive requirements of "class I" products (products suitable for children 0-3 years). All products have passed the tests and the products included are considered ecologically harmless for humans. More info can be found at: http://www.oeko-tex.com/.

Fig. 1: Oeko-Tex label.

Furthermore, Pavigym floorings are free of formaldehyde, pentachlorophenol, and the emission of VOCs (Volatile Organic Compounds) is well below the most accepted thresholds, as is the heavy metals content.
Pavigym floorings are also Latex and Phthalates free, as the chemical formula includes only EVA copolymer, blowing agents, inorganic fillers and peroxides.

Skin irritation test

Pavigym has also carried out a human skin irritation test at Fresenius Institute (Germany), where the material was classified as harmless regarding the possibility of skin irritation, and all materials fulfill the SG-requirements, as showed in Annex 3.

Fire reaction under EN 13501-1

Fire reaction behavior has been analyzed according to different classes, as per the European Directive for building products. The reference norm is the EN 13501-1:2002. Original certificates are available in Annex 2.

First level

All Pavigym standard floorings belong to Efl class. This is the minimum class for floorings to be used in a gym, as indoor sport surfaces.

Second level

Improved fire reaction floorings are also available optionally. This group reaches the class Cfl-s1, under the same norm (the old M3 class, as compared with the previous fire reaction classification).
Bfl-s1 is also possible, if the fire reaction requirement is well above the standard classes.

Fungal activities on Pavigym floorings

Tests on fragments of Pavigym floorings have been carried out, in order to check the activity of four classes of fungi, inoculated on this plastic medium. The method consisted of fungi inoculation on both antifungal treated and non-antifungal treated Pavigym fragments, and the observation of the fungi growth on such mediums.
The samples were kept inside an incubator, for 20 days, at a temperature of 30ºC.
After the incubation, both classes of samples (antifungal treated and not) experienced a similar behavior: no fungi invasion of the plastic samples was observed. The conclusion was that even non-treated Pavigym samples perform a fungistatic effect, which is defined as inhibiting the growth of fungi.

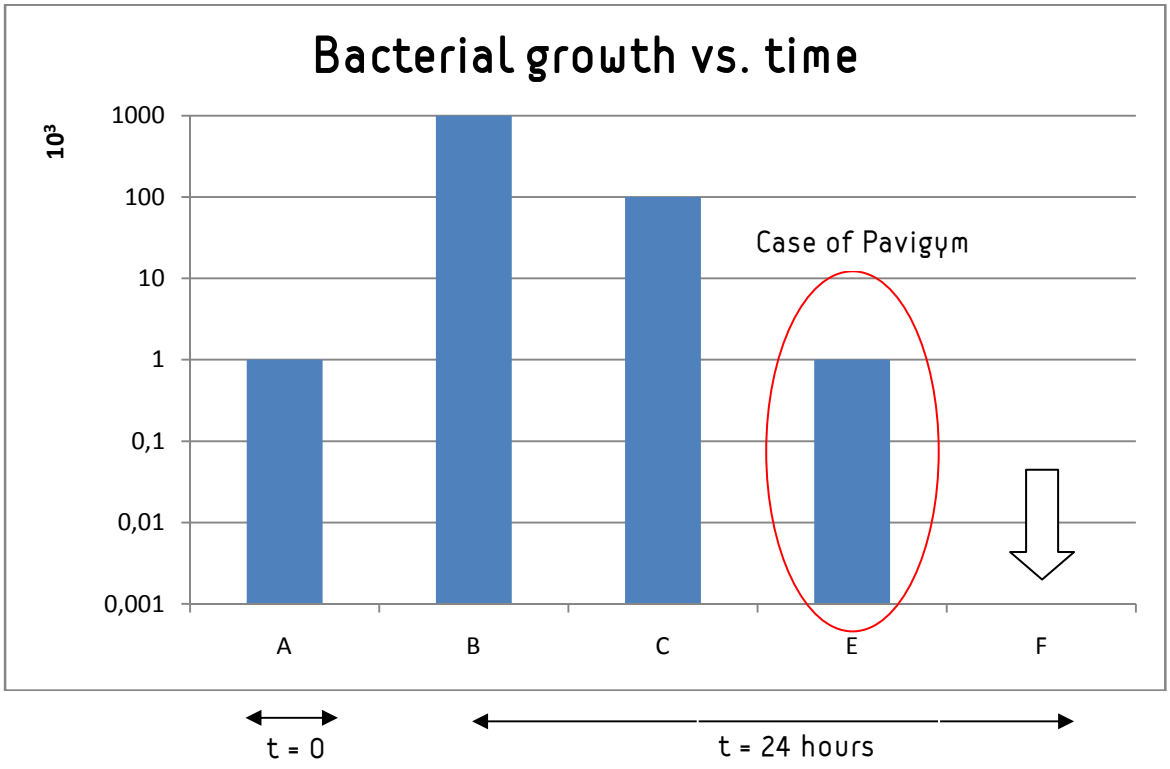
Evaluation of antibacterial efficacy of Pavigym samples

We submitted blind samples to an independent test house for an antibacterial testing against MRSA. Methicillin-resistant *Staphylococcus aureus* (MRSA) is a bacterium responsible for difficult-to-treat infections in humans. MRSA is by definition a strain of *Staphylococcus aureus* that is resistant to a large group of antibiotics, which include the penicillins.

For the determination of antibacterial efficacy, individual sample surfaces were challenged with live MRSA inoculums and incubated for 24 hours, according to JIS Z 2801 test method.
Both samples with antibacterial additive and the neutral one did not exhibit good growth, and passed results against JIS Z 2801 test specification.

The conclusion was that Pavigym demonstrated a bacteriostatic effect against MRSA, even in a neutral condition (no antibacterial additive presence). Bacteriostatic effect is defined as the capability to inhibit growth or multiplication of bacteria. As a further concern, it was not possible to reach the "bactericide" level, which is defined as a medium or agent capable of destroying bacteria. To better explain this behavior, the following graph will resume the actual context of Pavigym floorings. The diagram, in a logarithmic scale, shows the 4 most common cases referred to bacterial growth vs. time:

Fig.2 Bacterial growth vs. time



Legend:
A: start nº of bacteria inoculated, at t = 0;
B: bacterial growth, after 24H;
C: antibacterial effect, moderate growth after 24H;
E: bacteriostatic effect, no significant growth observed;
F: antibacterial effect, all bacteria are killed.

ISO 9001 quality management system

Pavigym always manages its processes and services so that activities meet the objective to satisfy the customer's quality requirements.

The quality management system, certified by SGS under ISO 9001 norm, always works to enhance customer satisfaction, by achieving continual improvement of its performance in pursuit of such objectives.

Pavigym Technical Service

Pavigym Technical Service represents the technical support for any issues related to use, installation and maintenance of Pavigym floorings and finishing solutions.

At Pavigym Technical Service, we liaise with customers, distributors, and installers to advise on any solutions and suggestions to enhance the performance of our products and customer experience. In addition, Pavigym Technical Service will send any kind of certifications and documents upon request, in order to certify the quality and performance of the products.

The service is available by phone (+34 965 675 070), e-mail (tech.service@pcg.es) and we will even evaluate the need of personal attendance on site upon request.

Certificates and documents list

1) Oeko-Tex certificate nº 2008AN7644. The Oeko-Tex certificate declares that Pavigym has been successfully tested according to Oeko-Tex Standard 100 and satisfys the requirements of the class I, with reference to:

- DETERMINATION OF CARCINOGENIC ARYLAMINES.
- DETERMINATION OF THE CONTENT ORGANIC TIN COMPOUNDS.
- DETERMINATION OF EMITTED COMPOUNDS.
- ODOR TEST.
- DETERMINATION OF FREE AND PARTIALLY RELEASABLE FORMALDEHYDE.
- DETERMINATION OF THE CONTENT OF PENTACHLOROPHENOL, TETRACHLOROPHENOL AND ORTOPHENYLPHENOL.
- PH OF THE AQUEOUS EXTRACT.
- DETERMINATION OF COLOR FASTNESS TO WATER.
- DETERMINATION OF COLOR FASTNESS TO RUBBING DRY.
- DETERMINATION OF COLOR FASTNESS TO PERSPIRATION.
- DETERMINATION OF COLOR FASTNESS TO SALIVA AND PERSPIRATION.

2) Fire reaction certificate of Pavigym floorings, under EN 13501-1.
3) Non-toxicity certificate, SG Criterias.
4) Biomechanical essay impact absorption.
5) Bibliographic references, injuries reduction with point-elastic floorings.
6) ISO 9001 certificate.

CERTIFICATE

aitex
Instituto Tecnológico Textil
Plaza Emilio Sala, 1-1º
E-03801 Alcoy (Alicante)
Institute of the International Association for Research and Testing in the Field of Textile Ecology (Oeko-Tex)

The company

PROTECTIVE COMFORT GROUP S.L.

PARTIDA CANASTELL I-98

03690 SAN VICENTE DEL REASPEIG (ALICANTE)

is granted authorization according to Oeko-Tex Standard 100 to use the Oeko-Tex mark, based on our **test report 2008AN7644**

CONFIDENCE IN TEXTILES
Tested for harmful substances
according to Oeko-Tex Standard 100
Test-No. 2008AN7644 **AITEX,**

for the following articles:

EVA FOAMS FOR THE MANUFACTURE OF PAVIGYM FLOORINGS, COMFORTGYM EXERCISE MATS AND PAVIPLAY CHILDREN´S FLOORINGS.

The results of the inspection made according to Oeko-Tex Standard 100, **product class** I have shown that the above mentioned goods meet the human-ecological requirements of the standard presently established for baby articles.

The certified articles fulfil the requirements of the existing European legislation regarding the use of azo-dyes.

The holder of the certificate, who has issued a conformity declaration according to ISO 17050-1, is under an obligation to use the Oeko-Tex mark only in conjunction with products that conform with the sample initially tested.

This authorisation is valid until 15.12.2009

Alcoy, 05.12.2008

Silvia Devesa Valencia
Laboratories Assistant Manager

Isabel Soriano Sarrió
Chief of laboratories Area

FIRE REACTION CERTIFICATES

1. "Efl" certificate: Pavigym Aerobic 9 mm.
Fire reaction classification according to the norm EN 13501-1:2002.
Inflammable when subjected to direct flames.

2. "Cfl-s1" certificate: Pavigym with improved fire reaction behaviour, according to the norm EN 13501-1:2002.
Determination of fire behaviour by means of a radiant heat source.

certificate

aitex
Instituto tecnológico textil
Plaza Emilio Sala, 1 - 1º
E-03801 Alcoy (Alicante)

ilac-MRA ENAC
ENSAYOS
Nº 12 / LE025
Nº 12 / LE045
Nº 12 / LE427
Nº 12 / LE813

The applicant: **AIJU**
Avda. Industria, s/n - Apdo. 99
03440 IBI - ALICANTE

Behalf of: **PEMARSA, S.A.**

is authorized to place the label " Certificate of Reaction to Fire of floor coverings " according to the report Nº 2007AN3250

aitex

CERTIFICATE OF REACTION TO FIRE OF :

FLOOR COVERINGS

Nº 07AN3250

The sample reference

"AERÓBIC "PARQUET CLARO" 9 MM"

has been tested according to the standards UNE EN ISO 11925-2:2002.
The classification according to standard UNE EN 13501-1:2002 is:

"E_{FL}"

This certificate has validity until the May 30 th 2012

Alcoy, May 31st 2007.

Raquel Muñoz González
CHIEF OF LABORATORIES AREA

certificate

aitex
Instituto tecnológico textil
Plaza Emilio Sala, 1 - 1º
E-03801 Alcoy (Alicante)

ilac-MRA ENAC
ENSAYOS
Nº12/LE025
Nº12/LE045
Nº12/LE427
Nº12/LE813

The applicant: **PROTECTIVE COMFORT GROUP S.L.**
Partida Canastell I-98
03690 SAN VICENTE DEL REASPEIG - ALICANTE

is authorized to place the label " Certificate of Reaction to Fire of floor coverings " according to the report Nº 2009ABP001

aitex

CERTIFICATE OF REACTION TO FIRE OF :

FLOOR COVERINGS

Nº 09ABP001

The sample reference

"PAVIGYM FR"

has been tested according to the standards UNE EN ISO 11925-2:2002 and UNE EN ISO 9239-1:2002. The classification according to standard UNE EN 13501-1:2007 is:

"$C_{FL,s1}$"

This certificate has validity until the January 07 th 2014

Alcoy, January 08 th 2009.

Raquel Muñoz González
CHIEF OF LABORATORIES AREA

Jordi Ferri Pascual
HEAD OF FIRE DEPARTMENT

PAVIGYM

NON- TOXICITY CERTIFICATE

Pemarsa, September 2007

Pemarsa, the producer of the commercially referenced: **Pavigym Aerobic, Pavigym Fitness, Pavigym Stretching and Pavigym Combi,** certifies that the aforementioned commercial references correspond with the internal formulations of Pemarsa, namely **Allegro.**

For organisational motives of a technical nature, some reports carried out in investigation centres may often be realised with the internal reference in place of the commercial reference. As a result, the certificates on which **Allegro** are tested, are extendable to the commercial references above mentioned.

Antonio Pacetti
TECHNICAL DIRECTOR

Institut Fresenius
Chemische und Biologische Laboratorien GmbH
Institut Fresenius Gruppe

Pemar Sa, s.a.
Partida Canastell, I-98-100

E-03690 SAN VICENTE DEL RASPEIG

November 18, 1998
Mrs Göttsch/G
☎ 0049 - 6128 / 744 - 151
FAX 0049 - 6128 / 744 - 201

Sample No. 98TL163965 - 98TL163966 and 98TL160968
Order No. 98/30947-00

Testing of „Allegro" compounds according to the SG-criterias

Dear Sirs,

Referring to your request we tested the samples according to the SG-criterias. The compounds will be used for orthopaedic shoes. We received the samples on October 23, 1998 and marked them as follows:

Sample No.	Designation		
98TL163965	Allegro 128	beige	EVA
98TL163966	Allegro 120	brown	EVA
98TL163968	Allegro 138	black	EVA

Detailed results are given in the enclosure.

Assessment

All producs „Allegro 128, 120 and 138" in the colours beige, brown and black correspond in all test items with the requirements of the SG-criterias, when the product has no significent odour.

We want to point out, that this report do not entitle to use the SG-label.

Best regards

INSTITUT FRESENIUS GMBH

Göttsch

Fangmann

Enclosure
Test result (4 pages)

Enclosure

Page 1 of the letter dated November 18, 1998
to: Pemar Sa, s.a., E-03690 San Vicente del Raspeig

Sample No. 98TL163965 - 98TL163966 and 98TL163968
Order No. 98/30947-00

Test results:

1. Odour

The samples all have a significant odour.

2. Migration

The samples were stored for 24 h at 40 °C in demineralized water. The ratio of surface to volume was 1:2, i.e. 100 cm^2 in 200 mL.

2.1 Global migration

The migrates were dried at 105 °C and the global migration determined as dry residue.

Designation		global migrate mg/dm^2
Allegro 128	beige	4,5
Allegro 120	brown	3,8
Allegro 138	black	3,5

requirement: max. 10 mg/dm^2

2.2 Specific migration of Vinylacetate

The determination of the Vinylacetate was carried out on the migrate by head-space GC.

Designation		Vinylacetate mg/L
Allegro 128	beige	< 1

requirement: max. 12 mg/L

Enclosure
Page 2 of the letter dated November 18, 1998
to: Pemar Sa, s.a., E-03690 San Vicente del Raspeig
Sample No. 98TL163965 - 98TL163966 and 98TL163968
Order No. 98/30947-00

3. Peroxides on the surface

The determination of peroxides on the surface was carried out according to recommendation B V and VI of the plastic commission of the BgVV.

Designation	Peroxides
Allegro 128 beige	not detectable

requirement: not detectable according to the method

4. Sweat resistance

The test for sweat resistance was run with alkaline sweat solution according to DIN 54020 under the condition of the method B 82.10-1 out of the „ASU § 35 LMBG".

Designation	Sweat resistance
Allegro 128 beige	sweat resistant
Allegro 120 brown	sweat resistant
Allegro 138 black	sweat resistant

requirement: sweat resistant

5. Fastness to rubbing

The test of fastness to rubbing was carried out according to DIN 53339.

Allegro 120 brown

	number of rubbing movements	appearance of surface	colouring of the rubber fabric (int. grey scale)
dry rubbing	100 x	no change	3-4
rubbing with water	50 x	no change	5
rubbing with alkaline sweat solution pH 9	20 x	no change	4-5

Allegro 138 black

	number of rubbing movements	appearance of surface	colouring of the rubber fabric (int. grey scale)
dry rubbing	100 x	no change	3-4
rubbing with water	50 x	no change	5
rubbing with alkaline sweat solution pH 9	20 x	no change	5

Enclosure
Page 4 of the letter dated November 18, 1998
to: Pemar Sa, s.a., E-03690 San Vicente del Raspeig

Sample No. 98TL163965 - 98TL163966 and 98TL163968
Order No. 98/30947-00

Allegro 138 black

Chemical name	International CAS-No.	Content mg/kg
4-Aminodiphenyl	92-67-1	< 30
Benzidine	92-87-5	< 30
4-Chloro-o-toluidine	95-69-2	< 30
2-Naphthylamine	91-59-8	< 30
o-Aminoazotoluene	97-56-3	< 30
2-Amino-4-nitrotoluene	99-55-8	< 30
p-Chloroaniline	106-47-8	< 30
2,4-Diaminoanisole	615-05-4	< 30
4,4'-Diaminodiphenylmethane	101-77-9	< 30
3,3'-Dichlorobenzidine	91-94-1	< 30
3,3'-Dimethoxybenzidine	119-90-4	< 30
3,3'-Dimethylbenzidine	119-93-7	< 30
3,3'-Dimethyl-4,4'-diaminodiphenylmethane	838-88-0	< 30
p-Cresidine	120-71-8	< 30
4,4'-Methylene-bis-(2-chloroaniline)	101-14-4	< 30
4,4'-Oxydianiline	101-80-4	< 30
4,4'-Thiodianiline	139-65-1	< 30
o-Toluidine	95-53-4	< 30
2,4-Toluylenediamine	95-80-7	< 30
2,4,5-Trimethylaniline	137-17-7	< 30

Assessment:
According to the analysis result the product has not been manufactured or treated by using azo colourants banned under the Ordinance on Commodities.

Threshold value of recognition: 30 mg/kg

INSTITUT FRESENIUS GmbH

Göttsch Fangmann

Institut Fresenius · Chemische und Biologische Laboratorien GmbH · Postfach 1261 · 65220 Taunusstein · Im Maisel 14 · 65232 Taunusstein
Telefon 06128/744-0 · Telefax 06128/744-890 · e-mail: ifgruppe@fresenius.com · internet: http://www.fresenius.com
Geschäftsführer: Ludwig Fresenius, Dr. Bernd Siegemund, Werner Unger · HRB 1338 Bad Schwalbach

PAVIGYM

BIOMECHANICAL ESSAY:

IMPACT ABSORPTION

IBV

ENTIDAD ASOCIADA

IMPACT ABSORPTION

PAVIGYM

IBV

ENTIDAD ASOCIADA

1.-OBJECTIVE

The objective of the research is to determine the impact absorption of Pavigym Aerobic 9 mm flooring through biomechanical and mechanical tests, realised and authorised by the Biomechanical Institute of Valencia (IBV).

2.-MATERIAL AND METHODS

1.-Accelerometer connected with the tibia
2.-Accelerometer connected with the head
3.-Electric goniometer connected with the knee
4.-Electric goniometer connected with the ankle
5.-Strength platform
6.-Rigid flooring sample

The research concentrates on the analysis of the impact absorption of distinct floorings. Therefore, the "drop test" has been carried out (vertical fall) with 5 athletes.

Each one made five repetitions of the free fall from a height of 350mm on each of the floorings, with arms raised and hands on waist.

The repetition was done firstly through contact of the frontal part of the foot (toes and metatarsal zone), putting the transmission support at the heel. The strength of the athlete's impact reaction against the flooring was registered through a strength platform, placed under the test flooring.

The impact level of the athlete and the transmission of this impact through the athlete's body was registered through the positioning of the accelerometers at the tibia and the head.

In addition the knee and ankle angles were registered during the athlete's reception stage on the flooring in order to check the possible adaptation of the movement by the test object, as well as the validity of the movement repetition.

PAVIGYM

IBV

ENTIDAD ASOCIADA

3. RESULTS

Result of the biomechnical test

Table of strength reduction of each of the tested floorings with regards to **"rigid" flooring**.

SURFACE	STRENGTH REDUCTION (BIOMECHANICAL TEST)
Aerobic	18,19

Result of the mechanical test

Due to the realisation of the mechanical impact absorption test according to the UNE norms on the Aerobic floorings, the results shown in the following table were obtained:

SURFACE	STRENGTH REDUCTION (BIOMECHANICAL TEST)
Aerobic	45

For mechanical tests, the norm UNE 41958 IN of sport floorings, in the interior multiuse flooring sector for point-elastic floorings classifies:

	Absorption Level
Rigid Floorings	10%
Floorings with low strength reduction	10%-20%
Floorings with moderate strength reduction	20%-35%
Floorings with high strength reduction	>35%

According to the norm UNE 41958 IN, the flooring strength reduction can be classified as high.

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ENTIDAD ASOCIADA

4. CONCLUSIONS

According to the mechanical research, Pavigym Aerobic possesses a high strength reduction (45%). This diminishes the injury risk as certified in the research of J.Durá Martínez (1997), the "Berlin Athlete" mechanical test, which demonstrates that the value of impact absorption in floorings for sport activities should be between 40% and 50%.

BIBLIOGRAPHIC REFERENCES

In order to ensure and support Pavigym's performance we subjected our Pavigym Aerobic to several tests in the IBV (Biochemical Institute of Valencia), verifying its impact absorption according to the norm EN 14904:2006. The results were excellent.

Pavigym has an impact absorption of 45%, which is considered to be shock-absorbing flooring: point-elastic floorings (more than 35% of absorption) and other floorings, generally area-elastic (which need more than 50 % of absorption in order to be classified as shock-absorbers). This quantitative differentiation (of 15 %) is made to compensate the big quality behaviour differences, which exist in favour of point-elastic floorings, such as Pavigym Aerobic. Numerous expert studies, published in Physical and Biomechanical Education prove this and are outlined below.

DURÁ ET AL. (1997)

Among the requirements, which sport floorings should possess, its friction and impact absorption characteristics play a decisive role as they are intrinsically connected with injury risk and athlete performance.

The excess of the friction level between flooring and shoes is connected to acute injuries. For sport activities in general, a friction coefficient between 0.5 y 0.7 is recommended.

With regards to shock absorption capacity, the DIN normative recommends values between 40 % and 50 % according to measurements made by the "Berlin Athlete" on cement.

BOSCO (1985)

The necessity of impact absorption in order to avoid bone and joint injuries seems to be a premise, which goes against sports performance, as a more shock-absorbing material dispels energy to a higher degree.
Bosco compared different sport floorings of different velocity and concluded that less rigid floorings do not diminish the running velocity, and actually favour jumping exercise performance, reducing the necessity of the athlete's initial impact absorption.

MCMAHON ET AL. (1979)

The athlete can obtain maximum running performance within an optimal absorbing terrain, not necessarily as a result of the most rigid flooring.
These conclusions lead us to believe that the most adequate aerobic flooring does not necessarily have to be the most rigid.

SAMMARCO (1984)

An excessively hard flooring which does not adapt well to certain intrinsic movements of determined activities such as dancing, can provoke serious injuries, such as tibial medial and distal periostitis, intensive lumbagos and tendonitis.
Aerobic exercises such as dancing, choreographic movements, jumps, turns, etc., are considered as intrinsic elements of these kinds of disciplines.

DURÁ, JV HOYOS, L.LOZANO AND A. MARTINEZ (1998)

With reference to the capacity of impact absorption. Flooring with an impact absorption value of more than 70 % (soft) do not significantly improve protection and reduce the effectiveness of jumps.

HINRICHS (1995)

Statistical studies on the cause of accidents conclude that in 50 % of the cases , it is due to the individual, with 20% due to the conditions of the flooring.

ALLEN ET. AL (1986)

Utilizing a soft flooring (sponge or mat) does not diminish the injury risk, since it has to adapt to sports demands and characteristics in addition to the athlete.

GARRICK JG (1993)

70 % of dancers' injuries are caused due to excessively hard flooring.

SOBRINO F.J GUILLEN(1996)

The principal risk factor in conjunction with dancer's injuries is hard flooring.

EVA M. NAVARRO, IGNACIO MARTÍNEZ, MERCEDES VERNETTA (2004)

They conclude that "hard and "un-flexible" flooring can mean joints become injured due to this kind of material. Above all, we should insist that suitable flooring recommended for aerobic exercises, has an impact energy absorption and restitution elastic surface."

Certificado nº ES05/1859

El sistema de gestión de

PEMARSA, S.A.

Partida Canastell, 98-100
03690 San Vicente de Raspeig (Alicante)

ha sido evaluado y certificado en cuanto al cumplimiento de los requisitos de

ISO 9001:2000

Para las siguientes actividades

Diseño y fabricación de planchas de espumas poliolefinicas y caucho vulcanizado.

Este certificado es válido desde
29 de noviembre de 2008 hasta 29 de noviembre de 2011.
Edición 2. Certificado con SGS desde noviembre de 2005.

Autorizado por

J. Moya
Director de Certificación

SGS ICS Ibérica, S.A. Systems & Services Certification
C/Trespaderne, 29. 28042 Madrid. España.
t 34 91 313 8115 f 34 91 313 8102 www.sgs.com

Cualquier aclaración adicional relativa tanto al alcance de este certificado como a la aplicabilidad de los requisitos de la norma ISO 9001:2000 puede obtenerse consultando a la Organización.

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