

HARO Sports - Introduction

Haro sport flooring unit was first founded in 1955 and with more than 50 years experience generated, *HARO* offer a comprehensive sport flooring system with contains of fast and easy installation, exceptional life span, greater safety for athletes, superior quality and a perfect appearance.

Aside of the above, due to the multi layer technology and the application of PERMADUR®, HARO Sports flooring system is anti-bacteria and has eliminated the problems created by the hard wood floor like swelling, shrinking, gaps and cracks.



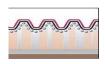
HARO sport flooring system is also a:

- Over 7,500 Installations World Wide
- Olympic Supplier since 1972
- FIBA authorized Partner and Supplier
- Largest Gymnasium Wood Floor Manufacturer in Europe -Over 330,000m2 sold per year
- All HARO floors fully DIN V 18032-2 certified





Worldly Recognized



Anti Bacteria



Long Lasting
Durability



HELSINKI 10-10

HELSINKI 10-10 Sport Flooring System is designed to maintain the same elastic properties throughout its entire life cycle. Load distribution strips are placed on top of the elastic layer. Its low construction height also makes **HELSINKI a perfect choice** for refurbishments and renovations.

Available: Oak, Ash, Beech & Maple



Helsinki 10-10 Sports Flooring System features a 12.6 mm thickness consisting of a premium choice hardwood top layer. The 3.6mm thick hardwood top layer receives a factory applied "PERMADUR®" finish for anti bacteria and surface protection. & fully meets the requirements of German DIN V standard 18032-2 and is officially approved by the international Basketball Association (FIBA).



Specification Summary - Helsinki 10-10

Measurements	2200 x 180 x 12.6mm
Construction Height	34.6mm
Surface	Pre-sealed
Top Layer	3-strip engineered hardwood
Wear layer	3.6mm solid hardwood
Under layer	9 mm plywood. To DIN68705 part 3
Resilient Layer	10mm foam underlayment
Polyethylene foil	0.03mm
Finish	PERMADUR® High Finish
Anti-bacterial	Yes
Fire resistance	C-S1
Shock absorption	Complies with DIN V 18032-2 62% (Minimum 53%)
Resilience	Complies with DIN V 18032-2 3.2mm (Minimum 2.3mm)
Deformation Control	Complies with DIN V 18032 –2 1% (Maximum 15%)
Ball Rebound	Complies with DIN V 18032-2 98% (Minimum 90%)
Friction	Complies with DIN V 18032-2 0.46 (Accepted as 0.4 to 0.6)
Rolling Load	Complies with DIN V18032-2 1500N (Required as 1500N)
DIN Standard	Fully Comply With DIN V 18032-2
RAL Quality Audit	Continued DIN-certified
Warranty	2 years



HELSINKI 20-10

HELSINKI 20-10 Sport Flooring System is designed to maintain the same elastic properties throughout its entire life cycle. Load distribution strips are placed on top of the elastic layer. Its low construction height also makes HELSINKI a perfect choice for refurbishments and renovations.

Available: Oak, Ash, Beech & Maple



Helsinki 20-10 Sports Flooring System features a 18.3 mm thickness consisting of a premium choice hardwood top layer. The 5.6mm thick hardwood top layer receives a factory applied "PERMADUR®" finish for anti bacteria and surface protection. & fully meets the requirements of German DIN V standard 18032-2 and is officially approved by the international Basketball Association (FIBA).



Specification Summary - Helsinki 20-10

Measurements	2200 x 180 x 18.3mm
Construction Height	40.3mm
Surface	Pre-sealed
Top Layer	3-strip engineered hardwood
Wear layer	5.6mm solid hardwood
Middle/Under layer	4.5mm plywood & 8.2mm spluce finger strips
Load Distribution Panels	Plywood BFU 100 DIN 68705 12mm
Resilient Layer	10mm foam underlayment
Polyethylene foil	0.03mm
Finish	PERMADUR® High Finish
Anti-bacterial	Yes
Fire resistance	C-S1
Shock absorption	Complies with DIN V 18032-2 62% (Minimum 53%)
Resilience	Complies with DIN V 18032-2 3.2mm (Minimum 2.3mm)
Deformation Control	Complies with DIN V 18032 –2 1% (Maximum 15%)
Ball Rebound	Complies with DIN V 18032-2 98% (Minimum 90%)
Friction	Complies with DIN V 18032-2 0.46 (Accepted as 0.4 to 0.6)
Rolling Load	Complies with DIN V18032-2 1500N (Required as 1500N)
DIN Standard	Fully Comply With DIN V 18032-2
RAL Quality Audit	Continued DIN-certified
Warranty	2 years



BERLIN 12F

BERLIN 12F Sport Flooring System features a factory-assembled double swing beam system and *it can be installed directly on raw concrete*. A minor unevenness in the sub floor can be leveled by placing equalizing material under the swing-beam pads and fixing them in place.

Available: Oak, Ash, Beech & Maple



Berlin 12F Sport Flooring System features a premium choice hardwood top layer. The 5.6mm hardwood top layer receives a factory applied "PERMADUR® "finish for anti bacteria and surface protection. Berlin 12F fully meets the requirements of German DIN V standard 18032-2 and is officially approved by the international Basketball Association (FIBA).



Specification Summary - Berlin 12F

Measurements	2200 x 180 x 18.3mm
Construction Height	87.3mm
Surface	Pre-sealed
Top Layer	5.6mm/ 3-strip engineered hardwood
Middle/ Under Layer	4.5mm plywood & 8.2mm Spruce Finger Strips
Plywood Pad	9 mm plywood acc. To DIN68705 part 3
Batten System	Haro Berlin Double Batten System
Upper Beam	4000 X 60 X 15mm
Lower Beam	4000 X 60 X 21mm
Intermediate Web	9 mm plywood and EPDM granules Regupol pads and PUR binder
Counter Floor Module	4000 X 80 X 15mm
Polyethylene foil	0.03mm
Finish	PERMADUR® High Finish
Anti-bacterial	Yes
Fire resistance	C-S1
Shock absorption	Complies with DIN V 18032-2 63% (Minimum 53%)
Resilience	Complies with DIN V 18032-2 3.4mm (Minimum 2.3mm)
Deformation Control	Complies with DIN V 18032 –2 5% (Maximum 15%)
Ball Rebound	Complies with DIN V 18032-2 98% (Minimum 90%)
Friction	Complies with DIN V 18032-2 0.46 (Accepted as 0.4 to 0.6)
Rolling Load	Complies with DIN V18032-2 1500N (Required as 1500N)
DIN Standard	Fully Comply With DIN V 18032-2
RAL Quality Audit	Continued DIN-certified
Warranty	2 years



HARO SPORTS Memberships

For over 10 years, *HARO SPORTS* has been an official partner of the *International Basketball Federation (FIBA)*, the independent world governing body for basketball.

Many major international sports associations know that a *HARO Sports Floor* is always the best choice because we offer the ideal solution for nearly every need.



FIBA (Federacion Internationale de Basketball), the world governing body for basketball, is an independent association comprising 208 national basketball federations throughout the world.

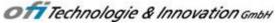


HARO Sports holds a valid World Squash Federation (WSF) Approval in respect of our Squash flooring and also belongs to the official list of approved suppliers.



International Association for Sports and Leisure Facilities

The goal of IAKS is to promote Sports in a wide area of applications.





The Austrian research institute for chemistry and techniques is a leading institute for research, experiments and testing in the field of sports flooring.

FSBA (Federation Suisse de Basketball) is responsible for national

Swiss Basketball Regulations and hosts the "Finale de la Coupe Suisse" annually.



Certified Environmental Quality.

As a manufacturer of branded quality products, it goes without saying that *Environmental Awareness* is a key element of our corporate philosophy.





ISO 14001.

We have been certified to $DIN\ EN\ 14001$ and validated to the $EU\ Eco\ Audit\ since\ 1998$



PEFC.

In 2003, we were awarded the *European PEFC certificate*, a proof that the timber we use can be traced and tracked through the entire product supply chain



FSC.

Our commitment to environmental safety is also reflected by our entire production cycle. *HARO* operate a high-performance combined heating and power station by *converts the waste wood into* into ecological power. The output corresponds to the power requirement of 60,000 households.





Certificate SGSCH-COC-002202

Hamberger Flooring GmbH & Co. KG

Rohrdorfer Straße 133, DE - 83071 Stephanskirchen

has been assessed and certified as meeting the requirements of

Chain-of-Custody

The company was assessed against the following standards: FSC-STD-40-004 V2-1 Standard for COC Certification - October 2011

for the products detailed in the scope below

Einkauf von FSC 100% Rundholz, FSC 100%/ FSC Mix Schnittholz und FSC Mix Holzwerkstoffen, sowie Herstellung und Vertrieb von FSC 100% und FSC Mix Fußbodenbelägen (z.B. Mehrschichtparkett, Laminatbodenbelag, Sporthallenböden, Celenio) mit dem Transfersystem. Purchasing of round wood (FSC 100%), lumber (FSC 100%, FSC Mix), and panel boards (FSC Mix), as well as manufacture and sales of FSC 100% and FSC Mix flooring products (e.g. hardwood floor, laminate floor, sports floor, Celenio) using the transfer system.

> This certificate is valid from 14 July 2015 until 13 July 2020 Issue 3. Certified since July 2005 SGS Ref [DE13/81840603]

SGS Société Générale de Surveillance SA Systems & Services Certification Technoparkstrasse 1 8005 Zurich Switzerland t +41 (0)44 445-16-80 f +41 (0)44 445-16-88 www.sgs.com

The validity of this certificate shall be verified on https://links.bs.com/. This certificate itself does not constitute evidence that a particular product upon covered by the certificate locificate see https://links.bs.com/. This certificate itself does not constitute evidence that a particular product supplied by the certificate locifier is FSC-certified (F FSC Controlled Wood, Products offered, shipped or sold by the certificate holder can only be considered covered by the scope of this certificate when the required FSC claim is clearly stated on invoices and shipping documents. This certificate remains the property of SGS and shall be returned up

FSC® A000531

The mark of responsible forestry

Accredited FSC-ACC-037

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CERTIFICATE

The Certification Body of TÜV SÜD Management Service GmbH certifies that

HAMBERGER ®

Hamberger Flooring GmbH & Co. KG Rohrdorfer Straße 133 83071 Stephanskirchen Germany

including the sites and scope of application see enclosure

has established and applies a Quality and Environmental Management System.

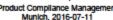
Performance of audits (Report No. 70012774) has furnished proof that the requirements under:

> ISO 9001:2008 ISO 14001:2004

> > are fulfilled.

The certificate is valid from 2016-07-13 until 2018-09-14.
Certificate Registration No.: 12 100/104 5754 TMS.









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The Certification Body of TÜV SÜD Management Service GmbH certifies that



Hamberger Flooring GmbH & Co. KG

Rohrdorfer Straße 133 83071 Stephanskirchen Germany

including the sites and scope of application see enclosure

> has established and applies an Energy Management System.

An audit was performed, Report No. 70752002.

Proof has been furnished that the requirements according to

ISO 50001:2011

are fulfilled.

The certificate is valid from 2015-12-07 until 2018-12-06.

Certificate Registration No.: 12 340 44656 TMS.

Product Compliance Management Munich, 2015-10-28 DAKKS
Deutsche
Aktrotiberungsstelle
D-ZM-14143-01-02

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CERTIFICATE OF APPROVAL

Valid until: December 31, 2018

Issued to:

HARO SPORTS

FIBA Equipment & Venue Centre Partner since 1996

FIBA (Fédération Internationale de Basketball) hereby declares, by means of this certificate, that the basketball equipment, indicated below, fulfils the standards specified in the latest edition of the Equipment & Venue Approval Programme and is therefore qualified as a

TECHNICAL PARTNER

Product Category: WOODEN FLOORING

Competition Level: 1, 2 and 3

Name of Product/Model: Fixed Systems: Berlin 2; Berlin 12F; Berlin 13F; Helsinki 10-10; Helsinki 15-10; Helsinki 20-10; Helsinki 10 Top 3; Helsinki Eco; Stockolm 10

Name of Product/Model: Portable System: Rome 20

Level 1; Main Official International Competitions of FIBA: Olympic Tournaments, World Olympic Qualifying Tournaments for Men & Women, FIBA World Cup (WC) for Men, FIBA World Cup (WC) for Men, FIBA U-17 WC for Men/ for Women, All Continental Championships, including all Qualifying Games and Tournaments for these Championships.

Level 2; Medium Level of Competitions: All other FIBA Official Competitions as Official Cups and Tournaments of FIBA and High Level Competitions of the National

<u>Level 2:</u> Medium Level of Competitions: All other FIBA Official Competitions as Official Cups and Tournaments of FIBA and High Level Competitions of the National Federations.

Level 3: Other Competitions: All other Competitions not included in the above.

Contract No: P40-2015

The Manufacturer is authorized to use the FIBA Equipment & Venue logo in its true colours on the above products models in accordance with the artwork provided. Note: FIBA levels of competition describe the levels of competitions for which the product (s) may be used; there is no link with the quality of the product (s).

Patrick Baumann Secretary General

January 2017





Western Park Sport Centre - Sheung Wan

西區公園體育館





Client: Architectural Services Department

Specification: Helsinki 20 Beech



The English Schools Foundation - Kennedy School

英基學校協會 - 堅尼地小學





Client: Architectural Services Department

Specification: Berlin 12 Beech



Gymnasium Room in AIA Building – North Point

北角友邦大廈





Client: Private

Specification: Helsinki 10 Beech



Aberdeen Community Centre

香港仔華貴社區中心





Client: HKSAR

Specification: Helsinki 10 Beech



Tseung Kwan O Complex

坑口體育館





Client: Architectural Services Department

Specification: Helsinki 20 Ash



Lam Tin North Municipal Service Building

藍田北政府市政大樓





Client: Architectural Services Department

Specification: Helsinki 20 Oak



Tseung Kwan O Indoor Velodrome-cum-Sport Centre

將軍澳室內單車場暨體育館





Client: Architectural Services Department

Specification: Helsinki 20 Oak