



TEST REPORT

FIBA 2014 Official Basketball Rules
Basketball rules & Basketball equipment

BERGO MULTISORT

BERGO FLOORING

LABORATORY TEST REPORT N° R151239-A1

LE MANS, 15/10/2015

This report is composed of 4 pages and 1 appendix.

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The results are valid only for the above sports surface. Complete results available on request.

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1 ■ CLIENT DETAILS

Company : BERGO FLOORING
Agatan 7
334 32 ANDERSTORP
SWEDEN

Date of order : 03/09/2015

2 ■ TESTS PROGRAM

LABOSPORT France has been commissioned by **BERGO FLOORING** to carry out laboratory tests on the multi-sports indoor sport floor **BERGO MUTLISPORT**.

Tests methods and technical requirements criteria considered in this report refer to the standard:

- FIBA: 2014 Official Basketball Rules – Basketball rules & Basketball equipment (10/2014)

Dimensions of the tested samples conform to the testing standards.

Samples were tested in accordance with the client's instructions (installation conditions, laying type).

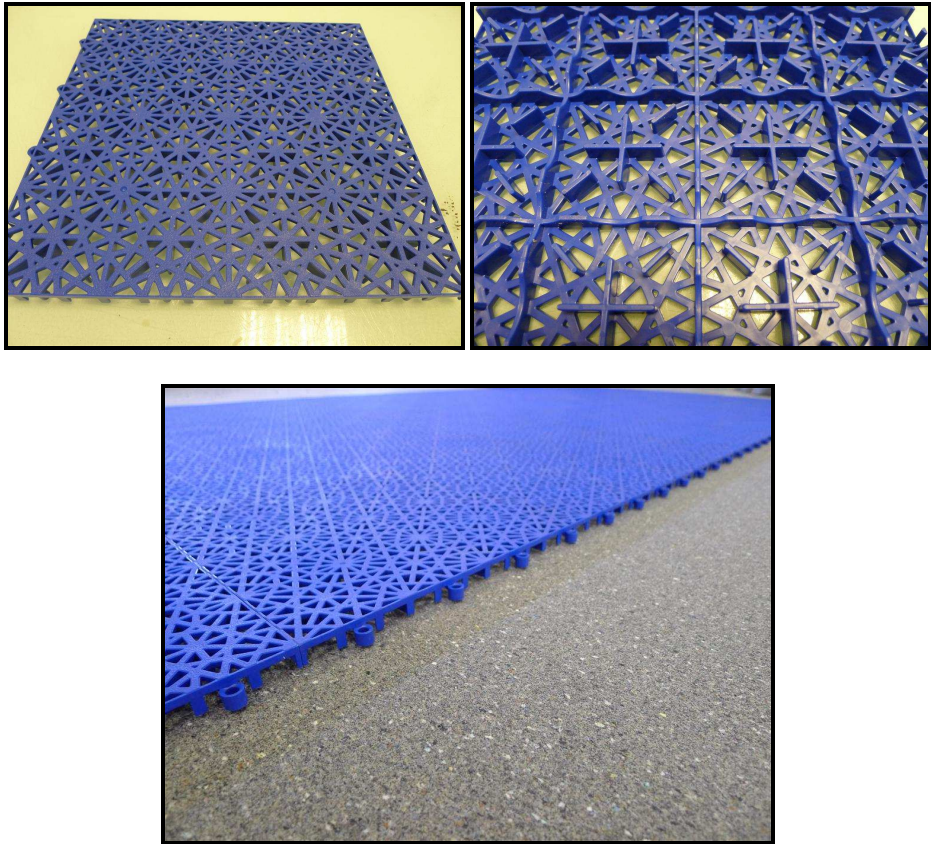
Tests are realized in laboratory where temperature and air humidity are controlled:

Temperature (°C)	23°C ± 2°C
Air humidity (%)	50% ± 10%

Technical references (manufacturer declaration) considered in this report have been supplied by **BERGO FLOORING** and refer to the following document:

- Technical data Sheet of **BERGO MUTLISPORT** with the reference **Technical information** from 03/2/2015) (cf. annex 1)

3 ■ SAMPLES (client declaration)

Product name	BERGO MULTISPORT
Product type	Area-elastic
Internal reference	017898 (Dark blue tile) & 17899 (5mm Re-bounce uni S82.27 underlay)
Receipt date	08/09/2015
Picture	
Description	<p>System composed of a 14 mm thickness tile and a 5mm thickness Re-bounce uni S82.27 underlay.</p> <p>Type of installation : Free Base : Concrete</p>

🚧 Product identification – Tile only

	Manufacturer declaration	Labosport results	Units
Total thickness	14.1	14.0	mm
Mass per unit area	3.9	3.8	kg/m ²
Density	275	270	kg/m ³
Hardness	-	90	shore A
Colour	Dark blue	Dark blue	-

4 ■ TEST RESULTS

Properties	Methods	Units	Results	FIBA* Requirements	Pass/Fail
Friction	EN 13036-4	-	97	80 - 110	Pass
Shock absorption	EN 14808	%	29	≥ 25	Pass
Vertical deformation	EN 14809	mm	2.3	≤ 3.5	Pass
Vertical ball rebound	EN 12235	%	97	≥ 90	Pass

* FIBA requirements for Levels 2 and 3: Mobile synthetic flooring

5 ■ CONCLUSION

Results of the tests mentioned below, comply with the requirements of the FIBA Manual (10/2014) for Level 2 and 3 (Mobile synthetic floor) :

- Friction
- Shock absorption
- Vertical deformation
- Vertical ball rebound

The results uncertainty has not been taken into account to declare or not the product conformity to the requirements.

Le Mans, 15/10/2015



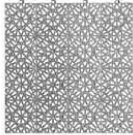
Benoit Bossuet
Synthetic Surfaces Technical Manager



Steve Bazeille
Laboratory Dpt Manager

ANNEX 1: TECHNICA DATA SHEET

TECHNICAL INFORMATION / TEKNISK INFORMATION



BERGO MULTISPORT

Material: /Material:		ISO2076	Environmentally friendly recyclable UV-stabilized polypropylene.	/ Miljövänlig återvinningsbar UV-stabiliserad polypropen.
Size of tile: /Plattans storlek:		EN427	303,3 x 303,3 mm.	
Thickness of tile: /Plattans tjocklek:		EN428	14,1 mm.	
Weight: /Vikt:		EN430	1 tile: 0,356 kg. 5 m ² : 20,18 kg (Maxi-pack). 4x3 tiles: 4,272 kg (Preassembled sheets).	
Point load: /Punktbelastning:		QUALIFIED TEST BY BERGO	500 ton / 1 m ² = 5000 kg/dm ²	
Light fastness: /Ljusbeständighet:		EN 14836 (>3) ISO 105-B02 (1-8) ISO 105-A02	4-5 7-8 4/5	
Weather Fastness /UV- Floorida test (1-5):		ASTM D1435 ASTM G154 Cycle A	4/5	
Slip resistance: /Halkmotstånd:		EN13036-4	108 PTV	
Impact resistance: /Slagtlighet:		ISO179/1eA ASTM D746	+23 °C = 20 kJ/m ² / -20 °C = 5 kJ/m ² C15 kJ/m ²	
Fire category: /Brandklassning:		EN ISO 11925-2	E _{fl}	
CE certification:		EN 14041	0402-CPD-P605080A	
Shock absorption: /Stötupptagning		EN 14808	6 %	
Vertical deformation: /Svikt		EN 14809	0,3 mm	
Vertical ball behaviour: /Bollstud		EN 12235	98 %	
Resistance to wear: /Nötningsmotstånd		EN ISO 5470-1	0,1 g / 1000 cycles	
Water infiltration rate: /Vattengenomsläpplighet		EN 12616	Requirement very well achieved. Uppfyller kraven med god marginal.	

Packaging:	Quantity / packaging unit:	Quantity / pallet:	Size of pallet:
Maxi-pack carton	5 m ² = 55 tiles	1 pallet = 36 cartons = 180 m ²	1,30 x 0,98 x 2,60 m = 3,3 m ³ , 754 kg gross weight
Preassembled sections	1 section = 4 x 3 tiles = 1,1 m ²	1 pallet = 75 sections = 81,8 m ²	1,26 x 0,96 x 1,21 m = 1,46 m ³ , 339 kg gross weight

EXPLANATION OF EXPANSION IN VARIOUS TEMPERATURES/FÖRKLARING TILL UTVIDGNING I OLIKA TEMPERATURER				Expansion: 0,015 % per 10 °C
Formula for the size of the expansion: (0,0015 x length of the floor) x (number of increased degrees /10) / Formel för själva expansionens (utvidgningens) storlek: (0,0015 x längden av golvet) x (temperaturökning (i grader)/10)				
Formula for the length of the floor after the expansion: Earlier length + length of the expansion				
Example	Length of floor Längd på golvet	Calculation Uträkning	Expansion	Length of floor after expansion Längd på golvet efter expansion
0°C-10°C	10 m	0,00075 x 10 m x (10°C/10) = 0,0075 m (=0,75 cm)	0,75 cm	10,0075 m
0°C-30°C	10 m	0,00075 x 10 m x (30°C/10) = 0,0225 m (=2,25 cm)	2,25 cm	10,0225 m
20°C-40°C	20 m	0,00075 x 20 m x (20°C/10) = 0,03 m x (= 3 cm)	3,0 cm	20,03 m



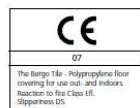
By normal use and treatment the material guarantee time is 10 years.



Bergo Flooring AB fulfills the requirements of ISO 9001.



Bergo Floors are 100% recyclable.



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