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CNAS L11342



TEST REPORT

Performance Tests for Synthetic Surfaces Intended for Multi-Sports Facilities
According to EN 14877:2013 Synthetic surfaces for outdoor sports areas - Specification

SES Battle 3

Hebei Enlio Sports Goods Co., Ltd

LABORATORY TEST REPORT N°: LSA-R24320-B1

Guangzhou Labosport, 2023.10.10

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1. CLIENT DETAILS

Company: Hebei Enlio Sports Goods Co., Ltd

Address: 10#Block, 4th Floor, Fang Da Science Park, No. 266 TianShan Street, Shijiazhuang, China

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Date of order: 2024.05.11

Sample reception: 2024.05.21

Test date: 2024.05.27-2024.10.09

2. TESTING PROGRAM

Guangzhou Labosport has been commissioned by Hebei Enlio Sports Goods Co., Ltd to carry out laboratory tests on the sport flooring named **SES Battle 3**.

Technical requirements criteria considered in this report refer to the standard:

-EN 14877:2013 Synthetic surfaces for outdoor sports areas - Specification - Table 3 - Synthetic surfaces intended for multi-sports facilities

-The following tests have been carried out on the surface in accordance with the following standard/test methods:

-Friction.....	EN 13036-4:2011 (CEN rubber & Dry/Wet)
-Shock Absorption.....	EN 14808:2005
-Vertical deformation.....	EN 14809:2005
-Vertical ball rebound.....	EN 12235:2013 (using a basketball)
-Water permeability.....	EN 12616:2023 (part 1 – Method A)
-Resistance to wear.....	ISO 5470-1:2016 (using H18 wheels with a 1 kg load)
-Resistance to UVA.....	EN 14836:2018 (method 1)
-Colour loss.....	EN ISO 20105-A02
-Tensile properties.....	EN 12230:2023 (method 1)
-Accelerated ageing by hot air.....	EN 13817:2004
-Accelerated ageing by hot water.....	EN 13744:2004
-Thickness.....	EN 1969:2000

Dimensions of the tested samples conform to the testing standards.

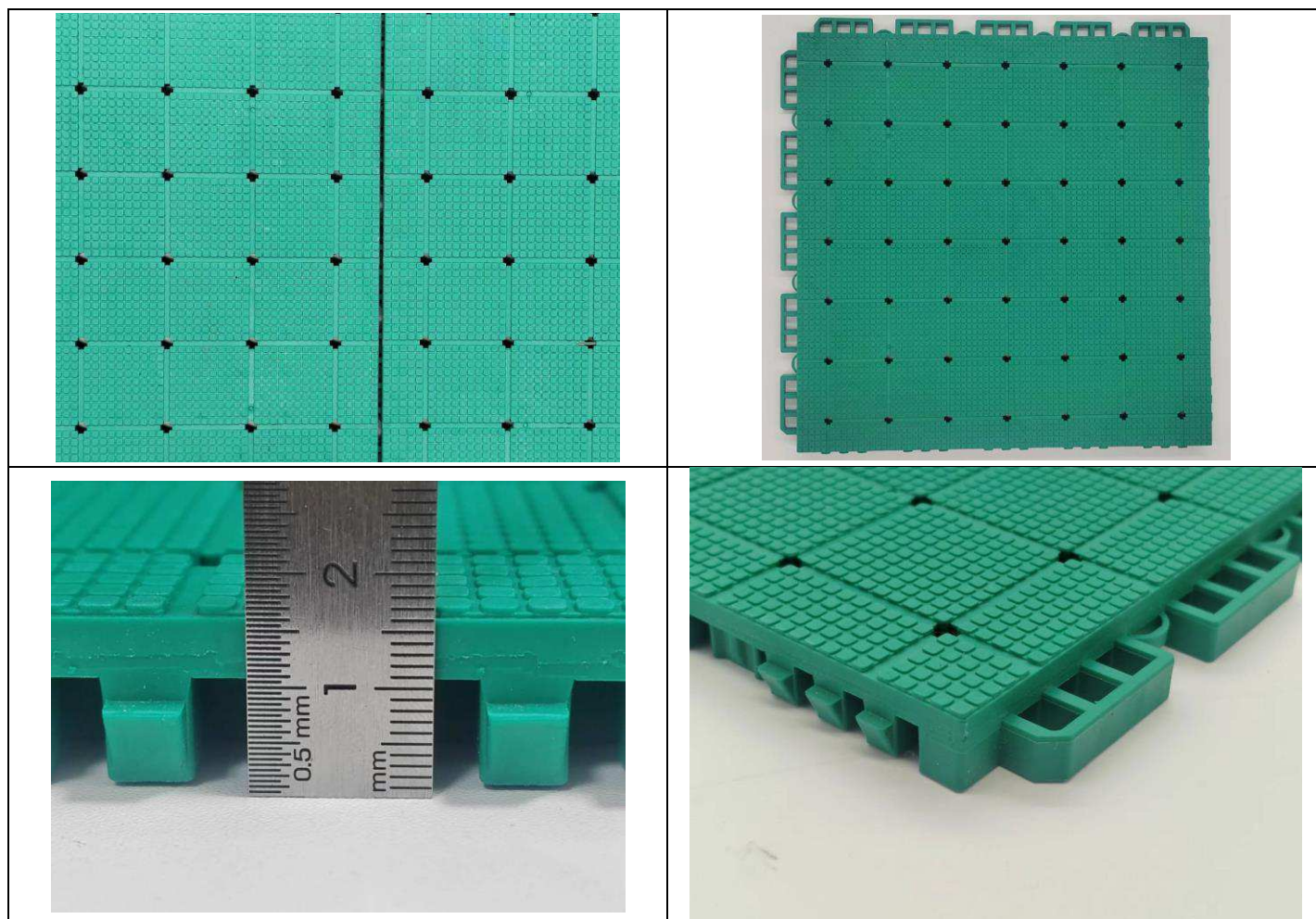
Samples were tested in accordance with the client's instructions (installation conditions, laying type).

-Tests were realized in laboratory where temperature and humidity are controlled.

-The tests conditions were:

Temperature (°C)	23°C ± 2°C
Air humidity (%)	50 % ± 5%

3. SAMPLES DETAILS (client declaration)



Product name	SES Battle 3 ^①
Sport Facilities	Multi-sports-facilities ^①
Thickness	16.0mm ^①
Description of the Construction	1. Surface small blocks design with double-groove drainage ensures safety and anti-slippery, water drains quickly. 2. Round corner design reduces sports injuries. 3. Elastic buckles can stretch freely and relieve expansion and contraction. 4. Supporting layer: the back plate is connected by ribs with mesh design, and the overall structure is stable.
Internal Reference	S24320

^① Above product declaration is provided and confirmed by Hebei Enlio Sports Goods Co., Ltd.

4. TESTS RESULTS

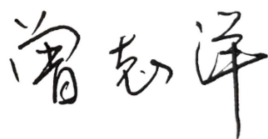
Properties	Methods	Units	Conditions	Results	Requirements
Friction	EN 13036-4 CEN Rubber	-	Dry, 23±2°C	102	80 – 110
			Wet, 23±2°C	48 ^②	55 – 110
Shock Absorption	EN 14808	%	Dry, 23±2°C	30	25 – 75 (Classification SA 25 to 34)
			After A/W Ageing ^③ , 23±2°C	29	
Vertical deformation	EN 14809	mm	Dry, 23±2°C	1.2	≤ 6
Vertical ball rebound	EN 12235	%	Dry, 23±2°C Basketball	100	≥ 85
Water permeability	EN 12616 Part 1-Methd A	mm/h	23±2°C	>24,000	≥ 150
Resistance to wear	ISO 5470-1	g	Unaged, 23±2°C	0.147	≤ 4.0 of mass loss between 500 and 1,500 cycles
			After Ageing UVA ^④	0.195	
Colour change	EN ISO 20105-A02	-	After Ageing UVA ^④	4	≥ 3
Tensile properties	EN 12230 Method 1	Mpa	Unaged, 23±2°C	1.11	≥ 0.40
			After A/W Ageing ^③ , 23±2°C	0.98	
Elongation at break	EN 12230 Method 1	%	Unaged, 23±2°C	118	≥ 40
			After A/W Ageing ^③ , 23±2°C	115	
Thickness	EN 1969	mm	23±2°C	16.3	Total ≥ 7

^②Not suitable for wet conditions.

^③After A/W Ageing-After accelerated ageing by hot air and hot water.

^④Test according to EN 14836:2018 (Method 1).

REPORTED BY:



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TECHNICIAN

APPROVED BY:



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