



Test Report

Determination of sports surface properties

Report-No.: 904 4016 06

Client: Berger-Seidle GmbH
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Order-No. (Client):

Order-No. (MPA): **904 4016 000 /Scz**

Test Item: **Sealing for sports floors "AquaChoice SPORT B Two" on a parquet surface**

Test Specification with Date of Issue: [1] DIN EN 14904:2006-06 Surfaces for sports areas – Indoor surfaces for multi-sports use – Specification

Date of Receipt of Test Item / Date of Sampling: 15.10.2024

Date of Test: 16.10.2024

Date of Report: 19.12.2024

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Enclosures :

Supplements:

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The test results relate only to the items tested.

Publication of this report in full or partly is only allowed with written authorization by MPA University of Stuttgart.

In compliance with DIN EN ISO/IEC 17025 accredited Testing Laboratory recognized by Deutsche Akkreditierungsstelle (DAKkS).
Accreditation valid for testing methods listed in the certificates.

1 Purpose of Investigation

You commissioned us with testing of technical properties of a surface for sports areas according to DIN EN 14904 [1]. Therefor we received two parquet surface samples (size approx. 20 cm x 70 cm) labeled as follows:

Sample 1: sealing for sports floors “**AquaChoice SPORT B Two**” on a parquet surface; application of one coat of AquaChoice SPORT B SealUp and two coats of **AquaChoice SPORT B Two** with 100ml/m² each

Sample 2: sealing for sports floors “**AquaChoice SPORT B Two**” on a parquet surface, application of one coat of AquaChoice SPORT B SealUp and two coats of **AquaChoice SPORT B Two** with 100ml/m² each

2 Tests and Analyses Performed

The following properties according to DIN EN 14904 [1] should be determined:

Linear friction, specular gloss, specular reflectance, resistance to wear

The friction test was carried out in accordance with the procedure described in DIN EN 14904 [1]. The tests performed are accredited tests according to DIN EN ISO/IEC 17025; see DAkkS-certificate (D-PL-11027-04-02). Conformity is assessed without taking the measurement uncertainty into account.

The tests were carried out according to the procedures mentioned in DIN EN 14904 [1].

The test climate was 21°C and 51% relative humidity.

3 Results of Investigation

The following test results were obtained.

Table 1: test results of linear friction of sample 1: "AquaChoice SPORT B Two"

Test spot	Linear friction	
	along	across
1	100	100
2	101	100
3	101	101
4	102	102
5	103	102
along/across Ø	101	101
Total Ø	101	

Table 2: test results of specular gloss of sample 2: "AquaChoice SPORT B Two"

Test spot	specular gloss	
	along [%]	across [%]
1	31,5	30,6
2	31,9	30,2
3	32,0	31,6
4	31,6	30,4
5	32,9	31,7
6	32,3	31,0
Ø	32,0	30,9

Table 3: test results of specular reflectance of sample 2: "AquaChoice SPORT B Two"

testing spot no.	reflectometer value, angle of incidence 85 °	
	along [%]	across [%]
1	34,27	32,79
2	33,78	32,94
3	33,22	33,21
along/across Ø	33,8	33,0
Total Ø	33,4	

Tabelle 5: test results of resistance to wear of sample 2: " AquaChoice SPORT B Two "

testing spot no.	mass loss [mg]
1	71,6
2	43,6
3	58,0
4	69,8
5	65,2
6	55,4
Ø	60,6

4 Interpretation of Results and Recommendations¹

According to EN 14904 [1] the following requirements are valid: -linear friction- mean value (80 – 110), range (+/- 4 units).

According to EN 14904 [1] the following requirements are valid: -specular gloss- At an angle of incidence of **85°**, the specular gloss must be \leq **30%** for matt sports floor coverings and \leq **45%** for lacquered sports floor coverings.

According to EN 14904 [1] the following requirements are valid: -specular reflectance- To be determined at an angle of incidence of 85°, the mean value is to be specified.

According to EN 14904 [1] the following requirements are valid: -resistance to wear- After testing with CS10 wheels with a load of 500 g, the maximum mass loss after 1000 cycles is 80 mg.


This requirement was fulfilled by the tested parquet sample coated with “**AquaChoice SPORT B Two**”.

Prepared by


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Testing Engineer



Approved and released by


Schulz
Deputy Head of Unit

¹ Opinions and interpretations are not subject to accreditation