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DAkkS
Deutsche
Akkreditierungsstelle
D-PL-11027-04-00

Test Report

Determination of sports surface properties

Report-No.:	903 4594-06
Client:	Berger Seidle GmbH Maybachstr. 2 67269 Grünstadt
Order-No. (Client):	
Order-No. (MPA):	**903 5458 000/Scz**
Test Item:	**PVC surface treated with „Aqua Seal ElasticStar“**
Specification Applied:	[1] DIN EN 14904:2006-06 Surfaces for sports areas –Indoor surfaces for multi-sports use – Specification
Date of Receipt of Test Item	23.11.2017
Date of Test:	starting 23.11.2017
Date of Report:	06.06.2018
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Enclosures :	2
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Total Number of Pages:	5
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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.

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 PVC surface samples (size approx. 20 cm x 70 cm) labeled as follows:

Sample 1: **„Aqua Seal ElasticStar"**

The treatment of the PVC sample with the surface sealant **„Aqua Seal ElasticStar"** was done according to manufacturers' instructions (product specification sheet dated 04.05.2017) in two layers with 50 ml/m² for each layer.

2 Testing procedure

The tests were carried out according to the procedures mentioned in DIN EN 14904 [1]. The test marked with ◙ is an accredited test according to DIN EN ISO/IEC 17025, see DAkkS-certificate D-PL-11027-04-07).

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

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

3 Results of Investigation

In the following table the test results obtained are tabulated and compared to the requirements of DIN EN 14904 [1].

The single test results can be found in tables 2-5, enclosures 1-2.

Table 1: Summary of the test results according to DIN EN 14904 [1], sample 1 „Aqua Seal ElasticStar“

Test acc. to EN xx described in DIN EN 14904 [1]	Test results		Requirements acc. to DIN EN 14904 [1]
Linear friction■ (EN 13036-4:2011)	83	max. deviation -3 / +3	80 – 110 (max deviation of single value +/- 4 units of mean value)
Specular reflectance (EN 13745:2004)	19,3 %		-[1)]
Specular gloss (EN ISO 2813:1999)	44,5 %		≤ 45 % at 85° for painted sport floor coverings
Resistance to wear (EN ISO 5470-1:1999)	112,6 mg		≤ 1000 mg (H18 wheel; 1000 cycles; load 1000g)

-[1)] no requirements acc. to DIN EN 14904 [1] – result has to be reported

Prepared by

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Approved and released by

Dr.-Ing. Michael Stegmaier
Section leader

Table 2: test results of linear friction acc. to DIN EN 14904 [1]

Test spot	Linear friction	
	along	across
1	80	82
2	81	83
3	83	81
4	85	81
5	86	84
along/across Ø	83	82
Total Ø	**83**	

Table 3: test results of specular reflectance acc. to DIN EN 14904 [1]

Test spot No.	Specular reflectance [%]	
	along	across
1	18,97	19,73
2	19,74	18,64
3	19,00	19,42
Ø	19,2	19,3
Total Ø	**19,3**	



Table 4: test results of specular gloss acc. to DIN EN 14904 [1]

Test spot No.	Specular gloss [%]	
	along	across
1	46,1	42,1
2	45,1	42,9
3	47,9	41,8
4	46,3	44,6
5	45,9	42,7
6	46,2	41,9
Ø	46,3	42,7
Total Ø	**44,5**	

Table 5: test results of resistance to wear acc. to DIN EN 14904 [1]

Sample No.	Loss in mass [mg]
1	104,2
2	125,7
3	103,1
4	112,8
5	120,1
6	109,5
Ø	**112,6**

