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MPA STUTTGART Materials Testing Institute University of Stuttgart

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

Test Report

Determination of sports surface properties

Report-No.:	903 5084-02
Client:	Dr. Schutz GmbH Steinbrinksweg 30 D-31840 Hessisch Oldendorf
Order-No. (Client):	-
Order-No. (MPA):	**903 5084 000 /Scz**
Test Item:	**PVC surface treated with „UV PU Sealer satin“**
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	21.03.2018
Date of Test:	March 2018
Date of Report:	27.03.2018
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Total Number of Pages:	5
Number of Reports:	1

The test results relate only to the items tested.

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: **„UV PU Sealer satin“**

The treatment of the PVC sample with the surface sealant **„UV PU Sealer satin“** was done according to manufacturers' instructions (product specification sheet dated 28.03.2017) in one layer with 100 ml/m².

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 „UV PU Sealer satin“

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 -2 / +2	80 – 110 (max deviation of single value +/- 4 units of mean value)
Specular reflectance (EN 13745:2004)	18,1 %		-[1)]
Specular gloss (EN ISO 2813:1999)	26,2 %		≤ 30 % at 85° for mat sport floor coverings
Resistance to wear (EN ISO 5470-1:1999)	678 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

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

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

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

Test spot No.	Specular reflectance [%]	
	along	across
1	18,30	17,02
2	17,62	18,54
3	18,88	18,48
Ø	18,3	18,0
Total Ø	**18,1**	

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

Test spot No.	Specular gloss [%]	
	along	across
1	28,0	25,9
2	25,7	25,9
3	25,5	24,7
4	23,3	28,1
5	28,6	26,1
6	25,8	26,5
Ø	26,2	26,2
Total Ø	**26,2**	

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

Sample No.	Loss in mass [mg]
1	570,5
2	575,2
3	886,4
4	680,1
Ø	**678**