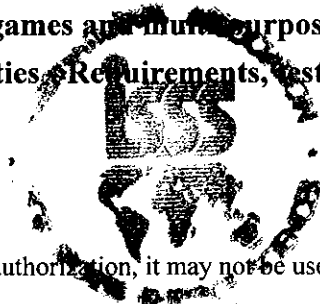


LABORATORY TESTS
INDOOR SPORT SURFACE
"ALSAGYM EN 6.2.1"
STOCKMEIER URETHANES FRANCE
SA/SNAD
REPORT R06-1643
January 23, 2007

Scope of application :

According DIN 18032-2 (04/2001) :

Sport halls - Halls for gymnastics, games and multi-purpose use - Part 2: Floors for sporting activities - Requirements, testing.



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b – Technical properties

b1 – ball rebound

b2 – behaviour under a rolling load

b3 – impact resistance (not mentioned in this report)

b4 – residual impression

IV – RESULTS :

a 1 – SLIDING PROPERTIES :

The device used is the “sliding apparatus Stuttgart”

Result
0,43 - 0,46

a 2 – FORCE REDUCTION :

The apparatus used is Artificial Athlete.

Filtering system = low pass 120 Hz, 2 poles

Reference Force on concrete = 6,60 kN ± 0,25 kN

a 3 – VERTICAL DEFORMATION :

The apparatus used is Artificial Athlete.

a 4 – AREA DEFLEXION (W_{100}) :

The apparatus used is Artificial Athlete.

Spot test	Shock Absorption (%)	Vertical Deformation (mm)	Area deflexion (%)
Average	23	1.0	0

a 3 – THICKNESS FACTOR :

Ratio of the thickness of an elastic layer and its vertical deformation.

Result	8
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b 1 – BALL REBOUND :

The apparatus used is acoustic method

Reference basket ball rebound on concrete = 130,4 cm

Spot test	1	2	3	4	5	Average
Ball Rebound (%)	96.5	97.7	96.9	97.3	97.8	97.3

b 2 – BEHAVIOUR UNDER A ROLLING LOAD :

Under rolling load 1500N

Description of damage : no damage

b 4 – RESIDUAL IMPRESSION :

Behaviour of the sports floor after a stress by punctual loads of 0.3 kN during 5H.

Result	0.10
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V- CONCLUSION :

Tests	Requirements		Results
	Category 1	Category 2	
Force reduction (%)	> 51 %	> 45 %	23 %
Vertical deformation (mm)	< 3.5 mm	< 3.0 mm	1.0 mm
Thickness factor	> 4.0		8
Area deflexion W ₁₀₀ (%)	0 %		0 %
Rolling load	No damage		No damage
Residual impression	< 0.5 mm		0.10
Ball rebound (%)	≥ 90 %		97
Sliding properties	0.4 < result < 0.6		0,43 - 0,46

The results of the tests which are mentioned in part V, are in accordance with the DIN 18032-2.

Le Mans, January 23, 2007

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