

TEST REPORT

PHYSICAL AND MECHANICAL PROPERTIES OF LUNACOMP SLIP TEST

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Project Engineer Emmi Närhi
Project Engineer Kalle Kiviranta
Savonia University of Applied Sciences

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Customer:
Lunacomp Oy
Asemantie 52
FIN-74170 Iisalmi

Test summary:

Samples: Wood-plastic composites. Customer supplied samples.

Test: The purpose of this test was to determine the slip resistance of woodplastic composites. Tests were made at Savonia University of applied Sciences.

Test period : August 9 to September 5, 2011

Conditioning: 23 (± 2) °C, Rh 65 (± 5) %

Testing conditions: 23 (± 2) °C, Rh 65 (± 5) %

Test method: CEN/TS 15676 Wood flooring. Slip resistance. Pendulum test.

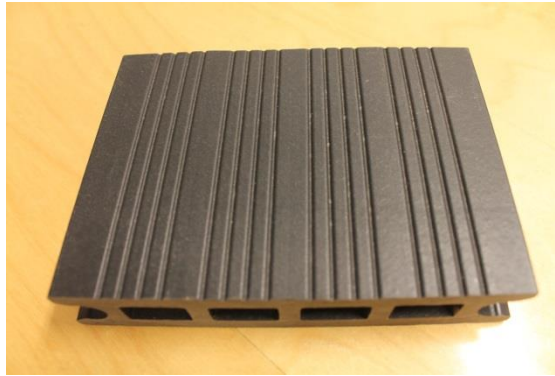
Test equipment: Portable Pendulum Skid Resistance Tester
(4S Rubber Slider (Slider #96))

Test principles: Testing has been carried out in accordance with to CEN/TS 15676. The measurement of slip resistance on the specimen was made using the pendulum friction test equipment to evaluate the frictional properties of the specimen on the upper face. Tests were carried out in the principal direction. Specimens were tested under dry and wet conditions.

Conclusion: The slip resistance value is the mean pendulum value obtained on the 10 specimens recorded to the nearest 1 unit. Lunacomp composite specimens indicate a low risk of slip in dry and wet conditions.

1 SAMPLE DESCRIPTION

Sample name:	LunaComp Deck, 140 x 26 mm
Sample sizes:	145 x 140 x 26 mm
Number of samples measured:	2x10
Sample Preparation:	Samples were cut from the extruded deck-board supplied by the customer with a circular saw.
Conditioning:	Before testing all samples were conditioned at 23 (± 2) °C and 65 (± 5) % rel. H. for at least 2 weeks.



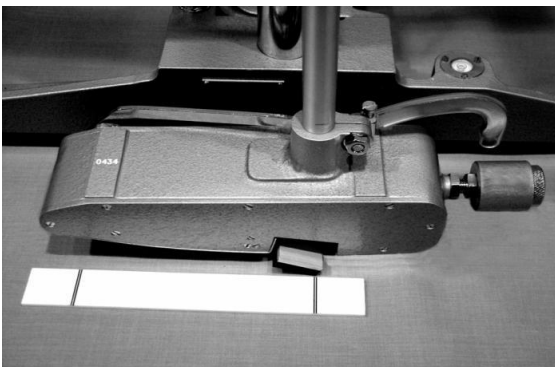
Picture 1. LunaComp Deck

2 TEST METHODS

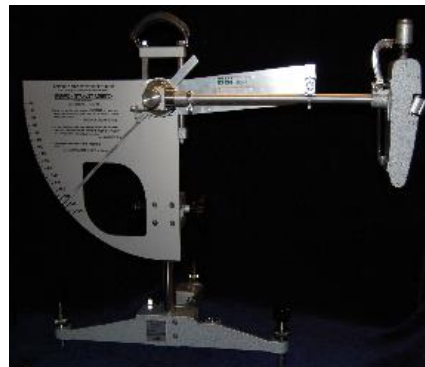
2.1 Pendulum test according to CEN/TS 15676

Testing has been carried out in accordance with to CEN/TS 15676: *Wood flooring. Slip resistance. Pendulum test*. The measurement of slip resistance on the specimen was made using the pendulum friction test equipment to evaluate the frictional properties of the specimen on the upper face.

The pendulum friction test equipment swings a rubber slider mounted on a weighted 'foot' from horizontal, striking the floor surface near vertical. The height to which the shoe travels after contacting the floor gives a reading of the Pendulum Test Value (PTV, formally known as SRV Slip Resistance Value). The dynamic coefficient of friction of the test surface has a direct and measurable effect on the Pendulum Test Value. The rubber slider that contacts the floor is constructed of '4S' rubber (Standard Simulated Shoe Sole) and is designed to replicate the most common slipping motion experienced by pedestrians wearing shoes. The same procedure was carried out for testing on wet surface as for dry surface but the surfaces of the specimens and the rubber slider was wetted with a copious supply of water. Test surfaces were subject to three measurements of the PTV.



Picture 2. The contact distance of the slider was set at 126 ± 1 mm as measured with a calibrated rule.



Picture 3. Pendulum Skid test equipment

A slip potential classification is applied using the following table:

Slip Potential	PTV
High	≤ 24
Moderate	25-34
Low	35-64
Extremely low	≥ 65

*Table 1. Slip Potential classifications
from Pendulum Test values*

3 RESULTS

The slip resistance value is the mean pendulum value obtained on the 10 specimens recorded to the nearest 1 unit. Lunacomp composite specimens indicate a low risk of slip in dry and wet conditions.

Surface	Number of test pieces	The slip resistance	Standard deviation	Coefficient of variation
<i>Conditions</i>	<i>n</i>	<i>PTV</i>		<i>%</i>
Dry	10	63	2,8	4,5 %
Wet	10	44	0,9	2,1 %

Table 2. The average results of the slip test

