



*Increasing Safety by Reducing Risk*

## **Pendulum Slip Test**

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**Customer: Floor For Paws**

**Test Number: FS10176**

**Operator: Glenn MacLaughlan**

**Date of Test: 5th July 2018**

**On Site: Sample Sen To Office**

**Pendulum Calibration Number: CN 505**

**Pendulum serial number: SK1628**

**Slider Type : Slider 55**

**Contaminate Description: N/A**

**Surface: Floors For Paws Dog Friendly Vinyl plank**

**Calibration checks done:**

lapping accepted 65+/-3	64	63	63	63	<b>62</b>
Glass accepted:7+/-3	9	8	8	8	<b>8</b>

**Theory**

A site assessment is an important component in determining the slip risk of any given floor. The HSE's pedestrian slip potential model highlights important environmental factors in a slip. Contaminating substances, frequency and methods of cleaning, types of footwear and likely pedestrian behaviour all affect the potential for a slip incident and are given due consideration.

Research carried out by the Health and Safety Laboratory, in conjunction with the UK Slip Resistance Group (UKSRG), has shown that it is possible to assess the characteristics of floor surface materials needed for satisfactory slip resistance. The Health and Safety Laboratory has developed a "reliable and robust" test method that forms the basis of Floor Safes assessment procedure.

The pendulum skid test forms the basis of the coefficient of dynamic friction measurement of a floor. A calibrated 'foot' swings from a horizontal point of release, strikes the flooring surface for a known distance, then reads the "pendulum test value" on its over swing. 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. A softer, more malleable, rubber (TRL rubber) may be used to simulate a barefoot or casual shoe slip. Pendulum testing is one of the few methods that models the formation of a hydrodynamic squeeze film between the floor and shoe sole, a major factor in a wet slip.

Test surfaces are subject to eight measurements of the PTV with the first three being discounted from calculations of the mean.

A prepared standard rubber slider attached to a weighted 'shoe' is allowed to swing from a horizontal point of release. The slider is mounted on a spring loaded bracket and makes contact with the floor for a known distance. 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 a test surface has a direct and measurable effect on the PTV reading obtained.

**HSE Guidelines**

0 – 24 High Risk for Slip potential

25 – 35 Moderate Risk for Slip Potential

&gt;36ptv Low Risk for Slip Potential

<u>Three Directions</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	<u>6</u>	<u>7</u>	<u>8</u>	<u>Result</u>	<u>Risk level of slip potential</u>	
<b>Dry Principal</b>	97	96	95	94	92	92	92	92	<b><u>92</u></b>	<b><u>Low</u></b>	
<b>Dry 45 Degrees</b>	93	92	91	88	88	88	88	88	<b><u>88</u></b>	<b><u>Low</u></b>	
<b>Dry 90 Degrees</b>	78	75	74	74	74	74	74	74	<b><u>74</u></b>	<b><u>Low</u></b>	
									<b><u>Result</u></b>	<b><u>85 PTV</u></b>	<b><u>Low Risk</u></b>

Glenn MacLaughlan is the Managing Director of Floor Safe Ltd. The company was started in 2007 and has provided pendulum slip testing for many major UK businesses. Glenn is also a member of the UK Slip Resistance Group. The UKSRG is the leading independent authority on slip resistance in the UK that works along alongside the HSE to reduce slip injury.

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The Pendulum Slip Value Readings were correct at the time of test. However this does not indicate the readings will remain the same this can be due to the installation, daily maintenance and the volume of foot falls.

If a sample has been sent for lab testing we highly recommend a re-test in situ.

Reported results in no way imply that the flooring under test is approved or endorsed by Floor Safe Ltd

Floor Safe Ltd do not give or assume warranty or condition, express or implied, statutory or otherwise, as to condition, quality, performance, merchantability or fitness for the purpose of the test subject and all such warranties and conditions are hereby excluded save to the extent that such exclusion is absolutely prohibited by law. Floor Safe Ltd shall not be liable for any subsequent loss or damage incurred by the client as a result of information contained within this report. **Results given herein refer only to areas or sample tested by Floor Safe Ltd**



*Calibration Certificate*

Manufacturer's Machine ID Number SK1628  
Item Tested **KSS** TRRL Type Skid Tester  
Customer Name Floor Safe Ltd  
Calibration Certificate Number CN 505  
Date Calibrated 13/10/2017  
Expiry Date 12/10/2018

We certify that this machine has been calibrated in accordance with BS EN 1097-8 : 2009, BS EN 13036 part 4:2003 and BS7976:Part 3:2002

Findings and adjustments are recorded in the Customer Report Form supplied with this Certificate.

The instrument should be re-calibrated within one year of the calibration date. (BS EN 1097-8:2009 Clause D.1.1 & BS7976 -3 2002 Clause 4 note 2 )

Authorised by

**K J Palmer**  
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