

INVESTIGATION INSPECTION TESTING MATERIALS

REPORT 67212/F

CONTINENTAL GRAFIX

SLIP RESISTANCE TESTING OF FLOORING PRODUCTS

Instruction: Email of instruction from Mr Roger Christ dated 9 March 2020

1. INTRODUCTION

We were instructed to undertake testing of four flooring products in order to establish slip resistance characteristics.

2. SAMPLES RECEIVED

Eight samples (four sets of two specimens each) were received at Sandberg laboratories on 17 March 2020.

Sandberg Reference	Advised Sample Type	Sample Size, mm	
F98987 A+B	CatWalk (x2)	300 x 300	
F98988 A+B	ClearWalk (x2)	300 x 300	
F98989 A+B	TexWalk (x2)	300 x 300	
F98990 A+B	AsphaltWalk (x2)	300 x 300	

3. TEST METHODS AND TEST RESULTS

One specimen from each set was tested in accordance with BS7976-2:2002+A1:2013 using the TRL Portable skid resistance tester (pendulum tester). As instructed, tests were carried out in dry and wet conditions using the rubber slider No. 96 (previously known as 4S) in three directions, at 0°, 45° and 90°. After this was completed the test surface was cleaned using washing up liquid and water, and testing in dry conditions only was repeated.

Surface roughness measurements were also carried out using a Sutronic Duo Roughness meter whilst the slip resistance measurements were being made. The measurements were carried out in accordance with The Assessment of Floor Slip Resistance, guidelines recommended by the UK Slip Resistance Group, Issue 5, 2016.

The test results are given in Table 1.



4. REMARKS

The TRL pendulum tester has a range of reading from 0 to 150, high values indicating good slip resistance. Guidance on the interpretation of results using the 96 rubber slider is suggested by the UK Slip Resistance Group¹ as follows:-

Potential For Slip	Pendulum Test Value		
High	0 to 24		
Moderate	25 to 35		
Low	36 +		

The surface roughness measurements are a guide to slip resistance particularly in borderline regions. It is recognised that increased roughness of the floor surface can give an improvement in slip resistance in wet conditions.

Surfaces contaminated with pure water generally require a surface roughness of at least $10\mu m$ R_z to provide a moderate level of slip resistance and at least $20\mu m$ R_z to indicate low slip potential: more viscous contaminants require higher surface roughness².

The PTV results are summarised below:

Sandberg	Advised	Pendulum Test Value					
Reference	Sample Type	Dry		Wet		Dry after clean	
		range	mean	range .	mean	range	mean
F98987 A	CatWalk	59-61	60	30-32	31	62-63	62
F98988 A	ClearWalk	60-63	61	26-30	28	61-65	62
F98989 A	TexWalk	64-65	65	37-45	42	65-70	68
F98990 A	AsphaltWalk	all 60	60	all 45	45	59-60	60

The results reported here relate to the surface as tested. It should be noted however, that the slip resistance of surfaces in service can be changed by various factors such as abrasion, polishing and contamination. Overall assessment of the potential for slip should take into account conditions of used and the environment, in addition to results.

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For the attention of Mr Roger Christ

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The Assessment of Floor Slip Resistance guidelines recommended by the UK Slip Resistance Group, Issue 5, 2016.

Roughness measurements should not be relied upon of themselves to judge the likely slip resistance of a floor.

SANDBERG



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Table 1

Date of Test

19/3 - 6/4/2020

SLIP RESISTANCE TESTING USING THE PENDULUM TESTER BS 7976:Part 2:2002+A1:2013

Project	Continental Grafix
Rubber Slider Type:	96 (previously known as 4S)
Material Under Test:	Various

Sample Ref. Sandberg / Client	Advised Sample Details	Surface Roughness¹ R₂, μm	Surface Temperature, °C Ambient/Surface	Orientation	Pendulum (me	Test Value ean) Wet
F98987 A CatWalk				А	59	32
	53.5	21/21	45° to A	60	30	
			90° to A	61	30	
F98987 A CatWalk (after cleaning)			21/21	А	63	=3/
				45° to A	62	-
			90° to A	63	-	
			А	60	26	
F98988 A	ClearWalk	42.8	21/21	45° to A	60	27
			90° to A	63	30	
F98988 A ClearWalk (after cleaning)	42.8	21/21	А	65	_	
			45° to A	61	_	
			90° to A	62	-	
		38.3	21/21	А	64	37
F98989 A TexWalk	TexWalk			45° to A	65	45
				90° to A	65	45
F98989 A TexWalk (after cleaning)	38.3	21/21	А	70	_	
			45° to A	68	-	
			90° to A	65	_	
F98990 A AsphaltWalk		55.5	21/21	А	60	45
	AsphaltWalk			45° to A	60	45
				90° to A	60	45
			21/21	A	60	-
	AsphaltWalk			45° to A	60	-
130330 A	(after cleaning)			90° to A	59	

Method : The Assessment of Floor Slip Resistance - The UK slip resistance Guidelines Issue 5 - 2016

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Where test results are given, the results and our conclusions relate only to the samples tested and apply to the sample(s) as received, except where sampling has been conducted by Sandberg LLP.

Materials, samples and test specimens are retained for a period of 2 months from the issue of the final report.

Tests reported on sheets not bearing the UKAS mark in this report/certificate are not included in the UKAS accredited schedule for this laboratory.

Opinions and interpretations expressed herein are outside the scope for UKAS accreditation.

End of report.









