Advance Group
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Client:
ALIDECK ALUMINIUM DECKING
First Floor South Wing
1 James Whatman Court
Turkey Mill Business Park
Ashford Rd, Maidstone, Kent
ME14 5PP

Test Site:

Date of Test: 10-JUN-19
Location of Test: Advance Group HQ
Description of surface/material: Balcony board

Condition of surface/material: Good
Temperature: 20.5 °C (To 1 decimal place)
Level / Gradient: Level

Operator ID: James
Reporting Standard: BS 7976
Pendulum ID: C3011
Slider ID: Slider 55
Direction A: Right to left
Direction A: Direction of traffic ; B: 90 Degrees ; C: 45 Degrees

DIR' N	CONT' N				1	2	3	4	5	MEAN	PREV	RISK
A	DRY	100	100	100	100	100	100	100	100	100	0	Low
A	WET	85	86	85	85	84	84	83	82	84	0	Low
B	DRY	76	79	78	78	77	77	76	77	77	0	Low
B	WET	48	47	46	46	45	44	44	44	45	0	Low
C	DRY	99	99	98	97	97	96	95	97	96	0	Low
C	WET	59	58	57	56	55	54	54	53	54	0	Low

Observations and recommendations

The surface is at risk of water contamination, meaning the surface can become wet whilst in use.
No further action is required as the surface is suitably rough / profiled / conditioned to provide adequate levels of grip in wet conditions. The average PTV of the surface is equal to or greater than 36 which classifies the area as Low Risk.
Spot clean small spills using absorbent cloth/paper towel. Provide training and then supervise. Ensure spills cleaning equipment is readily available for use.
Keep people off smooth wet floors – Barrier off/close off areas, wet mop out of hours when no-one is around. Reduce drying time – dry mop the floors with a clean, proprietary dry mop.
Remove cones and signs as soon as cleaning is completed and floor is dry. Provide training and then supervise.
Ensure that the surface is maintained regularly in a way that ensures it is kept clean and free from contamination to ensure ongoing slip resistance.

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Please find attached the results from the Pendulum Testing.

The tests were carried out in accordance with BS7976 part 2. A surface roughness meter is used to measure the ability of the floor's surface to puncture the hydrodynamic squeeze film. The film forms a barrier between sole and floor and significantly reduces grip, in the same way that a car tyre aquaplanes. The minimum recommended valley to peak height for a water wet surface is 20µm.

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. Coefficient of dynamic friction measurement is carried out in accordance with BS 7976 and the UKSRG Guidelines 2005.

These industry standard methods of testing are essentially the same but with a slight difference between the two methods of preparation of the rubber sliders. Testing has been carried out in accordance with the UKSRG Guidelines as both the HSE and UKSRG agree that this is best practice.
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.

Test surfaces are subject to eight measurements of the PTV with the first three being discounted from calculations of the mean. Tests are carried out in the principal direction, at 45° to the principal direction and at 90° to the principal direction. Each direction is tested under both wet and dry conditions, totalling 48 measurements. A mean value is generated for wet and dry tests based on the performance in different directions. A slip potential classification can then be applied using the following table from the UKSRG Guidelines.

PTV	Slip Potential
<25	High
25-35	Moderate
>35	Low

Surface roughness, in particular the Rz value, describes the ability of a floor to puncture the hydrodynamic squeeze film. It is also a valuable tool to assess the wear level as over time traffic will smooth a floor surface, changing its slip risk potential. Advance Group use a Surtronic Duo surface roughness meter for assessment. The meter moves a stylus along the test surface, measuring the floor profile's average vertical peak to valley distance in microns. A test site will be measured ten times using this method, with tests carried out in random directions in an area local to the pendulum test. This is in line with UKSRG guidelines.

Surface roughness can be used to give a general indication of the slip risk potential of a floor, though it is by no means a comprehensive test. Advance Group use surface roughness measurements married to pendulum results to enable accurate ongoing monitoring of the surface. The UKSRG published the data shown in the table below to use in conjunction with pendulum testing.

Rz (um)	Slip Potential
<10	High
10-20	Moderate
>20	Low

Site Assessment

A site assessment is designed to highlight factors that have an impact on slip risk potential. The Advance Group site assessment follows the pedestrian slip risk potential model as developed by the HSE alongside guidance published by the UKSRG and our own expert knowledge and experience.

Information required to complete the site assessment is gathered primarily at the time and location of the test based on observations made by the test operator. Less obvious information, such as cleaning regimes or shoe control measures, is supplied by the person responsible for the site, or a representative of that person. Where information is uncertain, or an assumption is made, it is made clear that this is the case.

An Advance Group site assessment aims to provide the client with all necessary information of the factors contributing to slip risk of the tested areas. Drawing assessment criteria from a wide range of expert sources ensures that a complete and thorough report of slip risk is produced. Knowledge of factors adversely affecting slip risk allows intelligent decision making in ongoing health and safety procedures.

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Conclusion
Summary and recommendations are displayed on Page 1 of the report.

Recommendations
Our recommendations are displayed on Page 1 of the report.

As our company not only offers anti-slip solutions to a wide variety of shopping centres and Government buildings nationwide, we are well positioned to offer expert advice on the cleaning and maintenance of all floor surfaces.

If you wish to discuss any of the recommendations in more detail please feel free to contact me directly and I will be happy to help in any way I can.

Yours sincerely

Emma Riley
Director

Date: 29 November 2018

Our Ref: 7797

Your Ref: Online Order #2580

Advance Group
16, Atley Business Park,
Atley Way, Cramlington
Northumberland
NE23 1WP

Certificate of Conformity for TRL (55) Rubber

Description and Part Number	Qty	Specification
881032/1 - Mounted TRL Rubber (55) Slider – Large – for Main Tester. Batch No. 1893	1	Hardness: BS ISO 48:2010 Lüpke Resilience: BS ISO 4662:2009

Temperature	0°C	10°C	20°C	30°C	40°C
Hardness IRHD	57	56	55	56	56
Resilience % (limits)	43-49	58-65	66-73	71-77	74-79
Resilience % (mean results)	44	60	69	74	77

The hardness, at all the specified temperatures, was within the specified limit of 55±5 IRHD.

The Lüpke resilience was within the specified limits.

The TRL rubber supplied, Batch Number 1893, conforms to the properties detailed in BS 7976-1:2002+A1:2013 and the UK Slip Resistance Group guidelines.

Recommended date of disposal: 29/11/2019

Certified that the whole of the supplies detailed above have been inspected, tested and unless otherwise stated, conform in all respects with the requirements of the contract or order.

Signed: Neve Barnett Date of issue: 29/11/2018

Calibration Certificate

Manufacturer's Machine ID Number	**SK1428**
Item Tested	**TRRL Type Skid Tester**
Calibration Certificate Number	**C3011**
Customer Name	**ACA Ltd**
Date Calibrated	**23/01/2019**
Expiry Date	**22/01/2020**

We certify that this machine has been calibrated in accordance with BS EN 1097-8 : 2009,BS EN 13036:part 4:2011 and BS7976:Part 3:2002

The procedures used are contained in the company's Quality Manual, which has been certified under ISO 9001:2008

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

WESSEX PRECISION INSTRUMENTS LTD

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