

**ATTAR TEST REPORT NUMBER: 08/2064.1**

This document is issued in accordance with NATA's accreditation requirements. The results of the tests, calibrations and/or measurements included in this document are traceable to Australian/national standards. Accredited for compliance with ISO/IEC 17025.

3 March 2008

Total Pages: 1**WET SLIP RESISTANCE**

Job No: M08/2064

| | | | | | | |
|---------------------------------------------|-----------------------------------------------------------------------------------------------------------------|----|----|----|----|-------------|
| Prepared for: | Slipsafe Australia Pty Ltd. P.O. Box 6194 MICHELTON QLD 4053 | | | | | |
| Attention: | Mr Mark Braz | | | | | |
| Test Site: | ATTAR, Unit 27, 134 Springvale Road, Springvale. | | | | | |
| Test Date: | 25 September 2007 | | | | | |
| Test Specimens, Size & Quantity: | Yellow Plastic Tactile Ground Surface Indicators mounted on 10mm fibre cement sheet, 50x100 cm, 1 off supplied. | | | | | |
| Sampling & Direction of Testing: | Sampling conducted by client. Test direction parallel to TGSi layout. | | | | | |
| Test Personnel: | Simon Langdon. | | | | | |
| Preparation: | As received by client mounted to 50x100 cm cement sheet, washed in tap water and dried. | | | | | |
| Fixed/Unfixed: | Unfixed. | | | | | |
| Air Temperature: | 21°C | | | | | |
| Test Equipment: | Stanley Skid Resistance Tester (Pendulum) Serial Number 0320, Calibrated 11/04/2007. | | | | | |
| Test Standard: | AS/NZS 4586 - 2004 Slip resistance classification of new pedestrian surface materials – Appendix A. | | | | | |
| Slider Rubber: | Slider 96 (Four S) Batch No. 19 | | | | | |
| Classification Criteria: | Refer Appendix 1 – Classification Criteria, attached. | | | | | |
| British Pendulum Number | Specimen Number | | | | | Mean |
| | 1 | 2 | 3 | 4 | 5 | |
| | 36 | 36 | 35 | 38 | 36 | |
| Classification: | X | | | | | |

These results apply only to the specimens tested and it is recommended that before selection of flooring or paving materials the effect of service conditions, including maintenance procedures and wear on their slip-resistance be checked.

NOTE: Any specimens supplied will be disposed of in two (2) months time, unless otherwise instructed.

ATTAR

Marcus Braché
Senior Engineering Technician

Simon Langdon
Engineering Technician

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**ATTAR TEST REPORT NUMBER: 08/2064.2**

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3 March 2008

Total Pages: 1**OIL-WET RAMP SLIP RESISTANCE**

Job No: M08/2064

| | | |
|--------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| Prepared for: | Slipsafe Australia Pty Ltd. P.O. Box 6194 MICHELTON QLD 4053 | |
| Attention: | Mr Mark Braz | |
| Test Site: | ATTAR, Unit 12, 134 Springvale Road, Springvale. | |
| Test Date: | 25 September 2007 | |
| Manufacturer: | Unknown | |
| Test Specimen, Size & Quantity Received: | Yellow Plastic Tactile Ground Surface Indicators mounted on 10mm fibre cement sheet, 50x100 cm, 1 off supplied. | |
| Sampling & Direction of Testing: | Sampling conducted by client. Test direction parallel to TGSI layout. | |
| Test Personnel: | Simon Langdon & Marcus Braché | |
| Preparation: | As received by client mounted to 56x106 cm cement sheet. | |
| Joint Width: | N/A | |
| Air Temperature: | 20°C | |
| Test Standard: | AS/NZS 4586 - 2004 Slip resistance classification of new pedestrian surface materials – Appendix D. | |
| Surface Structure : | Structured. | |
| Classification Criteria: (TABLE D3 in AS/NZS 4586- 2004) | Corrected Mean Overall Acceptance Angle | Slip Resistance Assessment Group |
| | 6° to 10° | R9 |
| | Over 10° to 19° | R10 |
| | Over 19° to 27° | R11 |
| | Over 27° to 35° | R12 |
| | Over 35° | R13 |
| Displacement Space: | Not Measured | |
| Displacement Space Assessment Group: | N/A | |
| Mean Overall Acceptance Angle: | 16.6° | |
| Slip Resistance Assessment Group: | R10 | |

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Marcus Braché
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3 March 2008

Total Pages: 1**OIL-WET RAMP SLIP RESISTANCE**

Job No: M08/2064

| | | |
|--------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------|-----------------------------------------|
| Prepared for: | Slipsafe Australia Pty Ltd. P.O. Box 6194 MICHELTON QLD 4053 | |
| Attention: | Mr Mark Braz | |
| Test Site: | ATTAR, Unit 12, 134 Springvale Road, Springvale. | |
| Test Date: | 4 October 2007 | |
| Manufacturer: | Unknown | |
| Test Specimen, Size & Quantity Received: | Yellow Plastic Tactile Ground Surface Indicators mounted on 10mm fibre cement sheet, 50x100 cm, 1 off supplied. | |
| Sampling & Direction of Testing: | Sampling conducted by client. Test direction parallel to TGSI layout. | |
| Test Personnel: | Simon Langdon & Marcus Braché | |
| Preparation: | As received by client mounted to 50x100 cm cement sheet. | |
| Joint Width: | N/A | |
| Air Temperature: | 19°C | |
| Test Standard: | AS/NZS 4586 - 2004 Slip resistance classification of new pedestrian surface materials – Appendix D. | |
| Surface Structure : | Structured. | |
| Classification Criteria: (TABLE D3 in AS/NZS 4586- 2004) | Corrected Mean Overall Acceptance Angle | Slip Resistance Assessment Group |
| | 6° to 10° | R9 |
| | Over 10° to 19° | R10 |
| | Over 19° to 27° | R11 |
| | Over 27° to 35° | R12 |
| | Over 35° | R13 |
| Displacement Space: | Not Measured | |
| Displacement Space Assessment Group: | N/A | |
| Mean Overall Acceptance Angle: | 26.3° | |
| Slip Resistance Assessment Group: | R11 | |

These results apply only to the specimens tested and it is recommended that before selection of flooring or paving materials the effect of service conditions, including maintenance procedures and wear on their slip-resistance be checked.

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APPENDIX 1

**CLASSIFICATION CRITERIA – AS/NZS 4586 - 2004****Compliance****TABLE 1
TEST AND CLASSIFICATIONS COMBINATIONS**

| Test conditions | Test method | Classification table to be used |
|-------------------------------------|--------------------|---------------------------------|
| Wet pendulum | Appendix A | Table 2 |
| Wet pendulum and dry floor friction | Appendices A and B | Tables 2 and 3 |
| Dry floor friction | Appendix B | Table 3* |

*Samples tested under dry conditions only are assumed to have a default wet classification of Z and shall be reported as classification ZF or ZG.

**TABLE 2
CLASSIFICATION OF PEDESTRIAN SURFACE MATERIALS
ACCORDING TO THE WET PENDULUM TEST**

| Class | Pendulum* mean BPN | |
|-------|------------------------------|---------------------------|
| | Slider 96 (Four S rubber) | Slider 55 (TRL rubber) |
| V | >54 | >44 |
| W | 45-54 | 40-44 |
| X | 35-44 | - |
| Y | 25-34 | - |
| Z | <25 | - |

*While either of these test methods may be used, the test report shall specify which method was used.

NOTE: It is expected that these surfaces will have greater slip resistance when dry.

**TABLE 3
CLASSIFICATION OF PEDESTRIAN SURFACE MATERIALS
ACCORDING TO THE DRY FLOOR FRICTION TEST**

| Classification | Floor friction tester mean value |
|----------------|----------------------------------|
| F | ≥0.4 |
| G | <0.4 |

Means of demonstrating compliance

Pedestrian surfaces that are classified in accordance with Table 2 and, where appropriate, Table 3 shall meet the following criteria:

- (a) The mean test results shall be as follows:
 - (i) For the classifications in Table 2, the mean of the test results shall be within the relevant criteria set out in the Table, and each individual result shall be equal to or above the lower limit for the classification or, if below the classification, within the mean of the result minus 20%. If either of these criteria is not met, the lot shall be considered to be a lower classification.
 - (ii) For Classification F in Table 3, the mean of the test results shall be equal to or greater than 0.4 and each individual result shall be equal to or greater than 0.35. If either of these criteria is not met, the lot shall be considered to be Classification G.
- (b) The classification in accordance with Table 2 or Table 3 shall be determined by –
 - (i) selecting and testing at least five specimens at random as defined in Appendices A and B; or
 - (ii) carrying out continuous testing and process control in accordance with AS 3942.
- (c) When testing individual lots, if a particular test fails to produce the expected classification it shall be permissible to:-
 - (i) disregard the first sample, re-sample a minimum of 10 specimens from the whole lot, retest and apply the criteria to the new sample; or
 - (ii) subdivide the lot into smaller lots of different quality, re-sample, retest and reclassify each of the smaller lots.