VSCN
ANNUAL CONFERENCE

PRACTICAL APPROACHES
TO COMMUNITY
SAFETY

SLIP RESISTANCE

- PETER WESTGATE
- CSIRO
- MANUFACTURING & INFRASTRUCTURE TECHNOLOGY
- INDUSTRIAL RESEARCH SERVICES
- HIGHETT

COST TO COMMUNITY

- SUFFERING
- HOSPITALS
- INFRASTRUCTURE
- LEGAL
- MAINTENANCE
- CLAIMS??

Slip Resistance Classification of new pedestrian surface materials

- AS/NZS 4586: 1999
- Wet Pendulum
- Dry Friction Floor
- Barefoot wet ramp
- Oil Wet ramp

Wet Pendulum

- 4S Rubber slider
- TRRL Rubber slider
- Wet test
- Dry test

Wet Pendulum

TABLE 2

CLASSIFICATION OF PEDESTRIAN SURFACE MATERIALS ACCORDING TO THE WET PENDULUM TEST

Class	Pendulum* mean BPN		Contribution of the floor surface to the risk of slipping when wet
	Four S rubber	TRRL rubber	
V	>54	>44	Very low
W	45–54	40–44	Low
X	35–44	—	Moderate
Y	25–34	—	High
Z	<25	—	Very high

*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 be more slip resistive when dry.

Dry Friction Floor Test

- 4S Rubber slider
- Dry test v Wet Test

Dry Friction Floor Test

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

Ramp testing

- Appendix C- Oil Wet
- Appendix D- Barefoot

Barefoot Ramp

TABLE 4

CLASSIFICATION OF PEDESTRIAN SURFACE MATERIALS ACCORDING TO THE WET/BAREFOOT RAMP TEST

Classification	Angle, degrees
A	≥12 < 18
B	≥18 < 24
C	≥ 24

Ramp test

- Appendix C- Oil Wet
- Appendix D- Barefoot

Oil Wet Ramp

TABLE 5

CLASSIFICATION OF PEDESTRIAN SURFACE MATERIALS ACCORDING TO THE OIL WET RAMP TEST

Classification	Angle (degrees)
R9	≥3 < 10
R10	≥10 < 19
R11	≥19 < 27
R12	≥27 < 35
R13	≥35

Oil wet Ramp

- Special shoes

Satra – Computer foot

- Control
- Angle of shoe or slider
- Toe or heel
- Length of path
- Downwards pressure
- Substrate surface
- Testing of stoppers & wheels

Satra – Computer foot

- Testing steel cap boot on unglazed floor tile.

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