Industrial Research Services

Manuf. & Infrastr. Technology, 14 Julius Ave (Riverside Corp. Park), North Ryde, NSW, 2113, Australia
Telephone: 61 2 9490 5444 Facsimile: 61 2 9490 5555 Web: http://www.cmit.csiro.au

Registered Testing Authority - Building Code of Australia

10 June 2003 Our Ref. ES13 / 746 03/0212

TEST REPORT No. SY491

Requested by: The General Mat Company Pty Ltd
on (date): 5 June 2003
Manufacturer:
Product Desc.: "Happy Feet" anti-fatigue texture-top No 491 resilient matt. 850mm x 550mm
Sampling details:
Where: Delivered
Date: 5 June 2003
By whom: Courier
How (methods): N/A

This test report consists of 4 pages

SUMMARY OF SLIP RESISTANCE TESTS PERFORMED:

		Result	Class
CSIRO SRO1:2002	Surface Roughness. Mean Rz (microns):	7.3	

In order to interpret the classifications, please refer to Standards Australia Handbook 197, An Introductory Guide to the Slip Resistance of Pedestrian Surface Materials, which recommends minimum classifications for a wide variety of locations.

It is important to realise that test results obtained on unused factory-fresh samples may not be directly applicable in service, where proprietary surface coatings, contamination, wear and subsequent cleaning all influence the behaviour of the pedestrian surface.

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SLIP RESISTANCE CLASSIFICATION OF NEW PEDESTRIAN SURFACE MATERIALS

DRY FLOOR FRICTION TEST METHOD

TEST CARRIED OUT IN ACCORDANCE WITH
AS/NZS 4586:1999 (Appendix B)

Test Date: 10 June 2003

RESULTS

Location: North Ryde Slip Resistance Laboratory
Sample Sample Unfixed
Cleaning: Distilled water
Temperature: 23°C
FFT measurements taken over 2 passes of 800mm each

Rubber Type: Four S
Conditioned with grade P400 paper, dry

Floor Friction Tester: Tortus Mk II (S/N: 244)

Run 1: Average COF: 1.01

Run 2: Average COF: 0.98

Mean COF: 1.00

According to AS/NZS 4586 the Dry Coefficient of Friction shall be reported as : **1.00**
(mean rounded to the nearest 0.05)

CLASS : F

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DETERMINATION OF SURFACE ROUGHNESS

CSIRO SRO1:2002 Test Date: 10 June 2003

RESULTS

Test Device: Taylor-Hobson Surtronic Duo
Cut off length: 0.8mm

Location: Slip Resistance Laboratory

Surface roughness values:

	Ra	Rz	Rv	Rp	Rt
	1.4	7.5	3.1	4.4	14.4
	1.4	6.2	1.7	4.5	10.5
	1.1	6.7	2.0	4.7	10.4
	1.6	8.2	2.6	5.6	12.3
	1.6	7.2	3.0	4.1	10.2
	2.2	7.0	2.1	4.9	13.1
	1.4	9.3	3.3	6.0	12.1
	0.9	5.0	1.4	3.6	10.2
	3.5	10.0	5.2	4.7	19.7
	1.3	5.8	2.4	3.4	8.1
Mean (microns):	**1.6**	**7.3**	**2.7**	**4.6**	**12.1**

BS 7976:2002, Pendulum Testers, requires a different test foot preparation (lapping paper) for pedestrian surfaces that have a Rz roughness of less than 15 microns. This lapping paper tends to reduce the pendulum result, sometimes appreciably. CSIRO recommends the use of this procedure (CSIRO COF1) as an adjunct to AS/NZS 4586. It helps to discriminate among products that have marginal wet slip resistance and to identify those that may be dangerous if wet.

The measurement of the various aspects of surface roughness is complex given the number of potential roughness parameters. While there is still some uncertainty as to exactly what type of roughness needs to be measured, peak-to-trough roughness (Rz) gives a useful guide to the likely slip resistance in wet conditions. Research has suggested that hard floors need to have a slightly higher Rz roughness than polymeric floors for the same degree of safety in wet conditions, but whatever flooring material is used an Rz roughness value of at least 10 microns is required where wet slip resistance may be required. In circumstances where wetness is normal or expected, this figure should be increased by a factor of 2 or more.

Greater peak surface roughnesses are likely to be required where floors slope or where the floor is likely to become contaminated with high viscosity liquids.

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Date and Place 10 June 2003, North Ryde, NSW.

Name(s), Title(s) and Digital Signature(s):

CARL STRAUTINS
TECHNICAL OFFICER

MICHAEL KING
LABORATORY MANAGER

Consulting services are available if further detailed analysis of the test results are required.