



Test Report

Test codes: ITF CS/01/01-01-009

Type of test: Laboratory

Brand name: Resene Tennis Court Coating

Test Laboratory: Centre for Sports Technology
Cromford Mill
Cromford
Derbyshire
England
DE4 3RQ

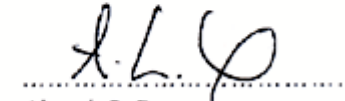
Client: Resene Paints Ltd
PO Box 38-242
Wellington Mail Centre
New Zealand

Date of test: 30th November 2001

Prepared by:


James Blackburn

Authorised by:


Alastair L Cox

Distribution:

Copy 1 – Centre for Sports Technology
Copy 2 – Resene Paints Ltd
Copy 3 - ITF

Issue Date:

30th November 2001

Average Surface Pace Rating: 25.6

Client: Resene Paints Ltd

Test items: Resene Tennis Court Coating

Test date: 30th November 2001

Full description of court surface – including manufacturer’s reference, the type of supporting layers and their method of attachment:

Description:

A textured acrylic tennis court surface 1mm thick, applied for this purpose of this test to a rigid MDF sheet. The test specimens were green (Methuen Colour Plate 26D6). The tests were carried out with the test specimens loose laid on a rigid concrete floor.

Manufacturer’s Specification:

A 100% acrylic coating filled with graded silicas.

Sample Details:

1 coat of acrylic resurfacer @ 0.4 litres per square metre. Allowed to dry for 12 hours. Applied 2nd coat of acrylic resurfacer @ 0.4 litres per square metre. Allowed to dry for 12 hours.

Acrylic resurfacer = Acrylic resin with silica sand filler

Mix ratio: 31 acrylic resin, 1.5l water, 2kg silica sand filler

1st coat of Resene Tennis Court Coating 2m²/litre, dry for 5 hours

2nd coat of Resene Tennis Court Coating 2m²/litre, dry for 5 hours

3rd coat of Resene Tennis Court Coating 2m²/litre, dry for 22 hours

Allow to cure for 9 days.

Test Procedure:

- 1) Tests on-site shall be undertaken on a court that is less than four months old. Prior to the tests being made the courts shall be prepared using the manufacturer’s, supplier’s or contractor’s approved procedures. The body requesting the testing shall undertake this work.
- 2) If the testing is undertaken in the laboratory, four samples, each measuring a minimum of 0.5m by 0.5m in area, shall be submitted to the ITF accredited laboratory. The laboratory shall select three samples at random and test each. Where the sample incorporates loose particulate materials the body requesting the tests shall prepare the samples in the laboratory.
- 3) Unless the surface is designed to be damp/wet when in its optimum condition, tests shall be made with the surface in a dry condition.
- 4) On completion of the tests, the ITF Accredited laboratory will complete this report. One copy of the report will be sent to the body requesting the tests and one copy to the ITF. On receipt of this report the company may apply to the ITF for inclusion on the ITF list of classified tennis court surfaces.
- 5) When commissioning the Surface Pace assessment the company requesting the tests shall provide a detailed specification of the court/surface construction. The information will be included in this report.
- 6) The ITF Accredited laboratory will retain a reference sample of the surface tested as follows:
 - a) When the tests are carried out on synthetic surfaces the company commissioning the testing shall supply one 0.5m by 0.5m sample of the surface to the laboratory. The laboratory shall have responsibility for verifying that the surface tested on site is the same as that offered as a reference sample.
 - b) When the tests are carried out on clay or other water bound mineral surfaces the ITF accredited laboratory shall remove 1kg samples of the surfacing and the top 75mm of foundation material. The laboratory shall retain these materials as a reference.
 - c) When tests are undertaken in the laboratory one of the specimens actually tested shall be retained, as a reference.

Test Report – Surface Pace :

ITF CS/01/01-01-009



Surface name: Resene Tennis Court Coating
 Test date: 30th November 2001

Temperature: 22°C
 Humidity: 40%

Test laboratory: Centre for Sports Technology
 Test type: Laboratory

PACE TEST 1:	(Ball 1)	(Ball 2)	(Ball 3)	(Ball 1)	(Ball 2)	(Ball 3)	(Ball 1)	(Ball 2)	(Ball 3)
	Shot 1	Shot 2	Shot 3	Shot 4	Shot 5	Shot 6	Shot 7	Shot 8	Shot 9
v_{ih}	27.77	28.39	27.94	28.63	28.62	27.51	28.12	27.98	27.59
v_{iv}	8.37	8.77	8.31	8.83	8.88	8.53	8.62	8.67	8.34
v_{rh}	16.47	16.95	17.05	16.89	16.86	16.01	16.79	16.51	16.56
v_{rv}	7.44	7.48	7.12	7.58	7.55	7.10	7.38	7.31	6.73
e	0.89	0.85	0.86	0.86	0.85	0.83	0.86	0.84	0.81
f	0.71	0.70	0.71	0.72	0.72	0.74	0.71	0.72	0.73
Pace	28.5	29.6	29.4	28.5	28.4	26.4	29.2	28.2	26.8

PACE TEST 2:	(Ball 4)	(Ball 5)	(Ball 6)	(Ball 4)	(Ball 5)	(Ball 6)	(Ball 4)	(Ball 5)	(Ball 6)
	Shot 1	Shot 2	Shot 3	Shot 4	Shot 5	Shot 6	Shot 7	Shot 8	Shot 9
v_{ih}	27.69	27.03	27.30	28.16	27.95	28.08	27.85	27.50	26.58
v_{iv}	8.71	8.26	8.57	8.87	8.77	8.82	8.80	8.83	8.39
v_{rh}	15.41	15.69	15.45	16.05	15.66	15.72	15.72	15.11	14.99
v_{rv}	7.49	6.92	7.44	7.58	7.63	7.75	7.64	7.54	7.22
e	0.86	0.84	0.87	0.85	0.87	0.88	0.87	0.85	0.86
f	0.76	0.75	0.74	0.74	0.75	0.75	0.74	0.76	0.74
Pace	24.2	25.3	26.0	26.4	25.1	25.4	26.2	24.3	25.8

PACE TEST 3:	(Ball 7)	(Ball 8)	(Ball 9)	(Ball 7)	(Ball 8)	(Ball 9)	(Ball 7)	(Ball 8)	(Ball 9)
	Shot 1	Shot 2	Shot 3	Shot 4	Shot 5	Shot 6	Shot 7	Shot 8	Shot 9
v_{ih}	27.17	26.47	27.74	27.65	26.23	27.16	26.28	26.89	27.37
v_{iv}	8.63	8.41	8.34	8.33	8.33	8.54	8.55	8.24	8.54
v_{rh}	14.37	14.23	15.73	15.49	14.11	14.66	13.92	14.98	14.87
v_{rv}	7.90	7.52	7.35	7.48	7.25	7.56	7.66	7.34	7.59
e	0.92	0.89	0.88	0.90	0.87	0.89	0.90	0.89	0.89
f	0.77	0.77	0.77	0.77	0.78	0.78	0.76	0.76	0.77
Pace	22.6	23.2	23.5	23.1	22.2	22.4	23.6	23.6	22.5

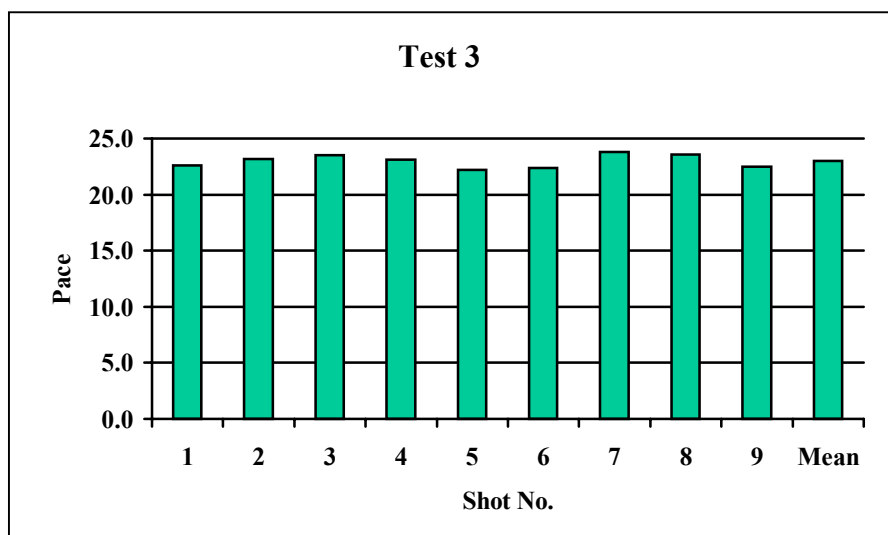
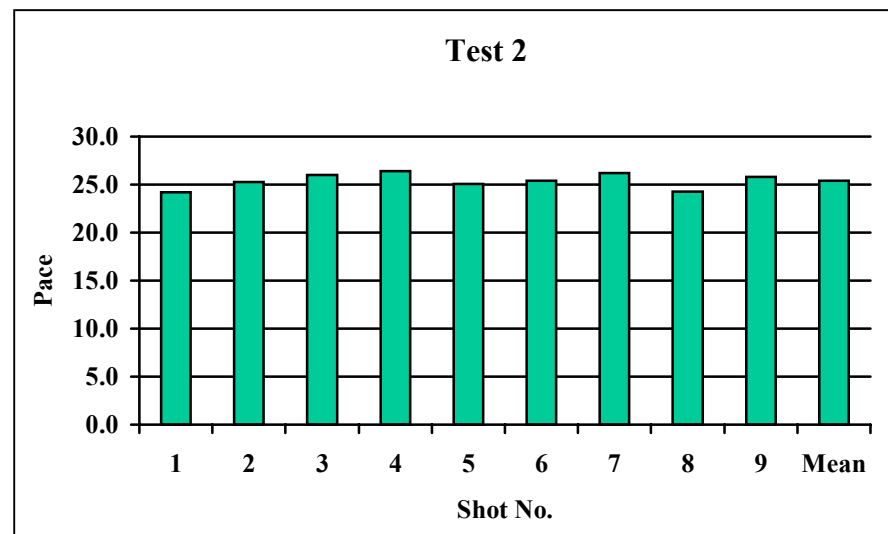
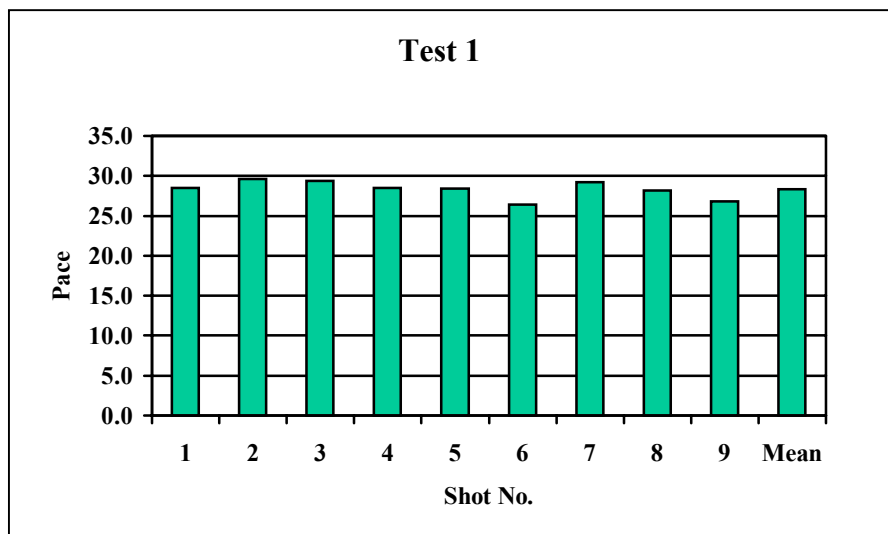


Test Report – Surface Pace : ITF CS/01/01-01-009

Surface name: Resene Tennis Court Coating
Test date: 30th November 2001

Temperature: 22°C
Humidity: 40%

Test laboratory: Centre for Sports Technology
Test type: Laboratory



Summary

Pace Test 1	28.3
Pace Test 2	25.4
Pace Test 3	23.0
Average e	0.87
Average f	0.74
Average Surface Pace	25.6
Standard Deviation	2.7

ITF Criteria: Slow – (0-35) Medium/Medium Fast – (30-45) Fast – (40+)



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Laboratory Comments:

Although the tests were carried out on laboratory samples the appearance and finish of the test specimens was considered by CST to be representative of the surface when laid on a tennis court.

CST defines a tennis court surface as the top (playing) surface and any underlying layers of construction that influences the sports performance (or bio-mechanical) response of a court. If any elements of the surface's construction change the response, performance and classification of the surface may be different. As such the results detailed in this report only apply to the surfaces when laid on a rigid (concrete, asphalt, etc.) base.

Laboratory Recommendations:

The results detailed in this report are considered to be a valid assessment of the Surface Pace characteristics of the product. In CST's opinion the product satisfies the technical criteria required of tennis court surfaces wishing to appear in the ITF's Court Surface Classification Scheme. CST recommend subject to ITF approval, that Resene Tennis Court Coating is included on the list of classified surfaces.