

Attention: Mr. F. Barnard

CUSTOMER REQUIREMENTS

RIDE-ON

P.O. Box 4550
KEMPTON PARK
1620

Tyre Sealant

Dynamic Radial Tyre Fatigue & Chemical Analysis

Report Number:

2710/C5035

Sample Tested:

Tyre Sealant

Date:

02 November 2007

Complied by:

T. C. Mnisi
(Test Officer)

Approved by:

L. van Driel
(Manager)



Conclusion:

The sample tested complied with the requirements of the customer, specific to those tests conducted in this report.

Number of pages 9

**1 Dr Lategan Road Groenkloof, Private Bag X191 Pretoria 0001, Tel: +27 (012) 428-7911,
Fax: +27 (012) 344-1568.**

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(Refer also to the complete conditions printed on the back of the official test reports.)

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1. INTRODUCTION

1.1 Object

- 1.1.1 To perform a Radial Fatigue Tyre test identified below for compliance with the customers requirements.
- 1.1.2 To perform chemical analysis on the tyre sealant.
- 1.1.3 To perform a road test on a commercial tyre.

1.2 Submitted information

The samples were submitted with test information.

1.3 Sampling procedure

The client submitted the wheel assy and tyre sealant samples personally.
The test house had no influence on the selection of the samples.
The samples handed were in a test worthy condition.

1.4 General information

Manufacturer	: Ride-on P.O. Box 4550 KEMPTON PARK 1620	
Number of samples	: 2	
Dates tested	: Sep-Oct 2007	
GVM	2500 kg	
Registration no.	JZH 021 GP	
	<i>Radial Tyre Fatigue</i>	<i>Road Test</i>
Tyre Name	Good year	Bridgestone
Tyre Size	165/80R 13	315/80 22.5

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2. DESCRIPTION OF CLAUSES AND TEST RESULTS

The symbols used in the results are as follows:

N/A = not applicable
 N/T = not tested
 N/F = not fitted
 T = tested

P = compliance
 F = non compliance
 I = inspected
 * = refer to remarks

2.1 Dynamic Radial Tyre Fatigue

Annex/Clause	Description	Results
2.1.1	Tyre and rim to be inspected for being test worthy	I
2.1.2	Tyre to be inflated to maximum recommended pressure	300kPa
2.1.3	Tyre and wheel to be balanced	P
2.1.4	Wheel assy. mass to be measured and recorded	14.9 kg
2.1.5	Tyre to be subjected to 3 hours dynamic rotation at max recommended loading	P
2.1.6	Tyre temperatures to be recorded at all stages	P
2.1.7	Tyre to be deflated, tyre sealant to be added (qty as per recommendation), tyre to be inflated and subjected to 3 hours dynamic rotation (Conditions per 2.4).	P
2.1.8	Tyre balance to be checked and recorded	I
2.1.9	Wheel assy mass to be measured and recorded	15.3 kg
2.1.10	Tyre to be mounted to dynamic radial fatigue machine, punctured once (6.35mm device), then subjected to 3 hours rotation. (Hole location to be marked)	P
2.1.11	Tyre to be punctured 3 more times at different locations , each puncture to be followed by 8 hour rotation	P
2.1.12	Pressure to be checked and recorded at after every road cycle (3 hour rotation).	P
2.1.13	Last road cycle to be followed by static 3 hour cycle, full load	P
2.1.14	Tyre to be inflated to 4 times max pressure	P*
2.1.15	Tyre temperature, pressure to be recorded	P
2.1.16	Tyre to be inspected for any visual deflections	I
2.1.17	Rotations will be recorded and converted to distance	P
2.1.18	The second tyre and wheel assy will not be tested. Will be used as reference only. Temperature measurements to be taken at regular intervals before and after sealant application for comparison purposes	I

2.2 Road test

Annex/Clause	Description	Results
2.2.1	Tyre to be inspected and inflated to recommended pressure	P
2.2.2	Vehicle to be driven for min. 5km for tyre etc to settle	P
2.2.3	Tyre pressure to be measured and recorded	800kPa
2.2.4	Tyre to be deflated, and sealant to be added as per recommendation	T
2.2.5	Tyre to be inflated to recommended pressure	P
2.2.6	Vehicle to be driven for min. 5km, for sealant to settle	T
2.2.7	Tyre pressure to be measured and recorded	800kPa
2.2.8	Tyre to be punctured once (6.35mm device), then be driven for min. 5km. (Hole location to be marked)	T
2.2.9	Tyre pressure to be measured and recorded	800kPa
2.2.10	Tyre to be punctured again followed the same procedure	T
2.2.11	Tyre to be punctured for the third time. wait 5min. Vehicle or tyre not to be moved at all, and pressure to be recorded	T

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3. SUMMARY OF TEST DATA

3.1 Dynamic Radial Fatigue

Clause 2.1.3: Tyre inflated to maximum recommended pressure

Elapsed Testing Time	Tyre Temperature (^o C)	Tyre Pressure (kPa)
0h00	21	300
1h00	46	345
2h00	49	349
3h00	49	350

Clause 2.1.7: Tyre sealant added as per recommended procedure and quantity

Elapsed Testing Time	Tyre Temperature (^o C)	Tyre Pressure (kPa)
0h00	19	300
1h00	35	341
2h00	41	348
3h00	47	352

Clause 2.1.10: Tyre punctured once in the center of tyre running surface

Elapsed Testing Time	Tyre Temperature (^o C)	Tyre Pressure (kPa)
0h00	18	300
1h00	27	350
2h00	44	351
3h00	48	351

Clause 2.1.11: Tyre punctured once in the center of tyre running surface (90^o)

Elapsed Testing Time	Tyre Temperature (^o C)	Tyre Pressure (kPa)
0h00	24	300
1h00	63	360
2h00	64	360
3h00	67	361

Clause 2.1.11: Tyre punctured once in the center of tyre running surface (180^o)

Elapsed Testing Time	Tyre Temperature (^o C)	Tyre Pressure (kPa)
0h00	21	300
1h00	52	362
2h00	53	362
3h00	62	369

Clause 2.1.11: Tyre punctured once in the center of tyre running surface (270^o)

Elapsed Testing Time	Tyre Temperature (^o C)	Tyre Pressure (kPa)
0h00	48	300
1h00	51	307
2h00	61	311
3h00	64	312

Clause 2.1.13 Static load test

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Clause 2.1.13 Static load test

Elapsed Testing Time	Tyre Temperature (°C)	Tyre Pressure (kPa)
0h00	20	300
1h00	20	300
2h00	20	300
3h00	20	300

Road test

Clause	Number of holes punctured	Distance traveled (km)	Tyre Pressure (kPa)
2.2.6	0	8,1	800
2.2.8	1	8,1	800
2.2.10	1	8,1	800
2.2.11	1	0	800

3.2 Chemical Analysis

Property	Requirements	Results
PH	8 min	10.1
Stability	No Separation 48 hrs	Compliance
Heat Stability	No Separation 90° 12 hrs	Compliance
Cold Stability	No Separation -20°	Compliance
Flash Point	No Flash	Compliance

4. REMARKS

- The sample completed the required cycles and there was no air leakage during the dynamic tests.
- The tyre was then inflated to the pressure of 800 kPa for a final test (reference to clause 2.14).
- Pressure losses were experienced during static puncture operation (radial fatigue tyre, max load).
- Road test resulted in no meaningful pressure loss.

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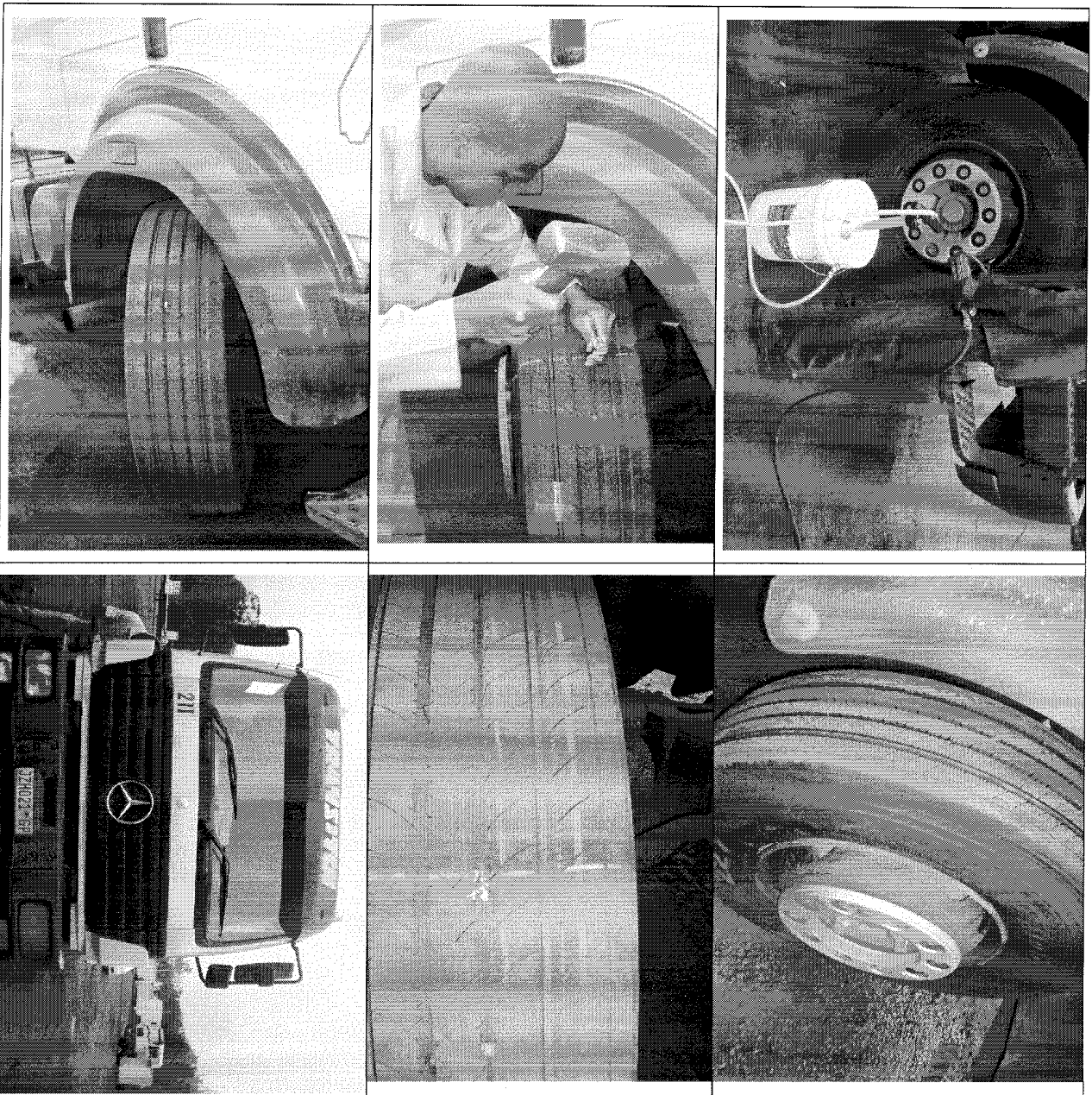
4. ANNEX 1

***FIND ATTACHED:
PHOTOGRAPHS OF TEST***

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5. CONDITIONS

The acceptance of an item for test and the issue of a test report are subject to the SABS's CONDITIONS OF TEST, from which the following have been extracted:*

- 1. If published or reproduced by the client, a test report shall be reproduced in full, i.e. the reproduction shall contain the printed as well as the typed parts of the report, nothing excepted. In special circumstances, an abridged form of the report or certain parts of the report may be published or reproduced, provided that the abridged form or partial version of the report is approved in writing by the CEO of the SABS before publication or issue.*
- 2. A test report relates only to an item submitted for the actual test. It furnishes or implies no guarantee whatsoever in respect of a similar item that has not been tested.*
- 3. The performance of a test and the issue of a test report do not imply approval by the SABS of the quality and/or performance of the item that has been tested. This does not authorize the use of a certification mark.*

NOTE: An unlawful statement implying that an item has been approved by the SABS constitutes a punishable offence in terms of Section 21(1) of the Standards Act.

- 4. While every endeavour will be made to ensure that a test is representative and accurately performed, and that a report is accurate in the quoted results and conclusions drawn from the test, the SABS or its officers shall in no way be liable for any error made in carrying out the test or for any erroneous statement, whether in fact or in opinion, contained in a report issued pursuant to a test.*

**Obtainable upon request from the President and CEO, SABS, Private Bag X191 Pretoria, 0001.*

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