

TEST REPORT

SABS

ORAFOL Europe GmbH
Attention: Dr. B. Görig
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16515 Oranienburg

Your Ref: Oralite 6710 7 Years RA1
Our ref: GE 01(B)
Enquiries A. Rocha
Tel: 012 428 6365
Date: 14 March 2013
Report No: 2330/ GE 01 (B)
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TESTING TO STANDARD SANS 1519-1: 2006(EDITION 2.2) "RETRO-REFLECTIVE SHEETING MATERIAL"

0. CONCLUSION

- 0.1 The sample complied with the requirements for class I, as requested in clause 3, as specified in standard SANS 1519 – 1: 2006 (Edition 2.2) as part of the accelerated artificial weathering cycle (Part A)
- 0.2 The natural weathering cycle (Part B) is in progress and will be reported every six months for coefficient of retro-reflection and colour and luminance factor, for a period of two years, as requested in clause 3, as specified in standard SANS 1519 – 1: 2006 (Edition 2.2).

1. SAMPLE DESCRIPTION

TABLE 1 - SAMPLE DESCRIPTION

Sample description	Colours	Marking displayed on the front surface of the retro-reflective sheeting
Oralite Engineering Grade Prismatic (EGP) retro-reflective sheeting material Class I	White	OR 6710 7 Years RA1
	Yellow	
	Green	
	Blue	
	Brown	

2. SAMPLE SUBMITTED

The sample was received in a condition suitable for testing.

Submission date : 10 January 2013
Testing starting date : 10 January 2013
Testing completion date : Tests in progress

SANAS Accredited Testing Laboratory No.T0085

1 Dr Latagan Road, Groenkloof, Private Bag X191, Pretoria, 0001. Tel +27 12 428 7911. Fax +27 12 344 1568

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3. TESTS REQUESTED

Full test.

4. TEST METHOD

Conducted in accordance with the inspection and test methods of standard SANS 1519 -1: 2006 (Edition 2.2).

5. TEST RESULTS

TABLE 2 - TEST RESULTS

Description of requirements	Clauses	Test results
Constructional requirements (visual inspection)	4.1	Complied
Coefficient of retro-reflection (before weathering)	4.2.2	Complied See attachments
Colour and luminance factor (before weathering)	4.2.3 and 4.2.4 respectively	Complied (not SANAS accredited) See attachments, luminance factor on Table 3 and Exclusions
Accelerated artificial weathering (1200 hours exposure to xenon-arc)	4.3.1	Complied
Coefficient of retro-reflection (after weathering)	4.3.1	Complied See attachments
Colour and luminance factor (after weathering)	4.3.1	Complied (not SANAS accredited) See attachments, luminance factor on Table 4 and Exclusions
Natural weathering (two years exposure)	4.3.1	Tests in progress See Conclusion
Flexibility	4.3.2	Complied
Resistance to impact	4.3.3	Complied
Adhesion	4.3.4	Complied
Resistance to corrosion	4.3.5	Complied
Coefficient of retro-reflection (after resistance to corrosion)	4.3.5	Complied See attachments
Resistance to temperature changes	4.3.6	Complied
Coefficient of retro-reflection (after temperature changes)	4.3.6	Complied See attachments
Colour and luminance factor (after temperature changes)	4.3.6	Complied (not SANAS accredited) See attachments, luminance factor on Table 5 and Exclusions
Marking (visual inspection)	6.1.1	Complied

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TABLE 3 – LUMINANCE FACTOR (BEFORE WEATHERING)

Colours	Luminance factor	Standard
White	0,47	$\geq 0,35$
Yellow	0,29	$\geq 0,27$
Green	0,07	$\geq 0,04$
Blue	0,04	$\geq 0,01$
Brown	0,04	0,03 to 0,09

TABLE 4 – LUMINANCE FACTOR (AFTER WEATHERING)

Colours	Luminance factor	Standard
White	0,47	$\geq 0,35$
Yellow	0,29	$\geq 0,27$
Green	0,07	$\geq 0,04$
Blue	0,04	$\geq 0,01$
Brown	0,04	0,03 to 0,09

TABLE 5 – LUMINANCE FACTOR (AFTER TEMPERATURE CHANGES)

Colours	Luminance factor	Standard
White	0,48	$\geq 0,35$
Yellow	0,29	$\geq 0,27$
Green	0,07	$\geq 0,04$
Blue	0,04	$\geq 0,01$
Brown	0,04	0,03 to 0,09

6. SUBCONTRACTING OF SABS LABORATORIES

Fibre & Polymers – resistance to artificial weathering test

Paints & Sealants – resistance to corrosion test

7. UNCERTAINTY OF MEASUREMENT

The estimated uncertainty of measurement of the photometric measurement is approximately 5,3 % for a 94,7 % level of confidence.

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8. EXCLUSIONS

Tests marked "not SANAS accredited" in this test report are not included in the SANAS Schedule of Accreditation for this laboratory.

9. NOTE

The sample must be exposed for a period of two years as part of the natural weathering cycle.



Tested by: A. Rocha
TECHNICAL SIGNATORY
LIGHTING TECHNOLOGY



Checked by: T. Fourie
MANAGEMENT SIGNATORY
LIGHTING TECHNOLOGY