



CLIENTS|PEOPLE|PERFORMANCE

CLIENT: Guardian Protective Coatings
Suite 4, 105 Broadway
Nedlands WA 6009

YOUR REF: Waterbased Gloss White

OUR REF: J/N 61/12579/08

Certificate of Test No. 5188

Sample: Waterbased Gloss White

Date Received: 21 September 2005

Date Tested: 17 – 22 December 2005

From: Guardian Protective Coatings, Nedlands

Description & Condition: 1 –off 1L kit of Waterbased Gloss White

TEST DESCRIPTION: CARBON DIOXIDE DIFFUSION RESISTANCE


Sample Preparation:

Coating system consisted of 2 coats by 10 mm napped roller on unglazed ceramic tiles. Recoat interval was 4 hours.

Test pieces conditioned to constant weight at $23 \pm 2^\circ\text{C}$ and $65 \pm 5\%$ RH prior to test.

Test Method:

GHD Laboratory Procedure No. LP/CTG01/01 "Procedure for Determination of the Gas Diffusion Resistance of Coatings". This method complies with the requirements of AS/NZS 4548.5-1999, Appendix D "Guidelines on Carbon Dioxide Diffusion Testing".


Tested By
N. Nguyen, Chemist
23/01/06
Date


Approved Signatory
A.M. Peek, Principal Materials Scientist
27/1/06
Date



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Test Results:

GHD Sample No:	P26986
Client Identification:	Waterbased Gloss White
Measured Dry Film Thickness, microns	50
CO ₂ Diffusion Coefficient, cm ² /sec	7.9 x 10 ⁻⁰⁹
Diffusion Resistance Coefficient (μ)	21370000
Equivalent Air Layer Thickness (R), m	983
Equivalent Thickness of Concrete (S _c), cm	246

- Note:
1. Results shown are mean values from test pieces P26986BI, P26986BII and P26986D.
 2. R and S_c are calculated for measured dry film thickness
 3. Klopfer criterion for an effective anti-carbonation coating is R > 50 m
 4. Calculation of S_c assumes typical μ = 400 for concrete.
 5. These results apply only to the formulation as submitted for test. Changes in the nature, source, or proportion of any component may render these results invalid.