



CLIENTS|PEOPLE|PERFORMANCE

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

YOUR REF: Waterbased Matt White

OUR REF: J/N 61/12579/08

Certificate of Test No. 5186

Sample: Waterbased Matt White

Date Received: 21 September 2005

Date Tested: 06 – 12 December 2005

From: Guardian Protective Coatings, Nedlands

Description & Condition: 1 –off 1L kit of Waterbased Matt 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



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Test Results:

GHD Sample No:	P26985
Client Identification:	Waterbased Matt White
Measured Dry Film Thickness, microns	50
CO ₂ Diffusion Coefficient, cm ² /sec	1.3 x 10 ⁻⁰⁸
Diffusion Resistance Coefficient (μ)	13070000
Equivalent Air Layer Thickness (R), m	608
Equivalent Thickness of Concrete (S _c), cm	152

- Note:
1. Results shown are mean values from test pieces P26985FI, P26985FII and P26985H.
 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.