

TAYWOOD ENGINEERING LIMITED

CONSULTANTS IN MATERIALS TECHNOLOGY
 Technology Park
 Suite 2, 14 Brodie Hall Drive
 Bently WA 6102
 Post Office Box 221, Victoria Park WA
 Tel: (090) 470 1511 Fax: (09) 470 1279
 A.R.B.N. 009 474 079

Test #: 2816. CRACK BRIDGING TEST – ASTM C836-89a

Testing was conducted on a 2500 N capacity, A grade, Universal Testing Machine at ambient conditions. Each membrane sample was subjected to 10 cycles, consisting of extending the masonry blocks 1.6mm and then relaxing back to zero displacement. Each cycle was conducted at a cross head separation rate of 0.05mm/min. following ten test cycles the bridging membrane on each test sample was examined for cracking, loss of adhesion or other failure modes. No defects were detected.

Test #: 2815. COLOUR CHANGE – ASTM D4587-91

Lab Sample No: P18325

Test Piece No	Grey Scale Reading	Rating
P18352	4 to 5	0 to 1, no colour change to very slight colour change
P18352	4 to 5	0 to 1, no colour change to very slight colour change

Test #: 1525 & 2972. WATER VAPOUR TRANSMISSION – ASTM E96-94

Lab. Sample No.	P10939 & P10940	P18325
Norminal Dry Film Thickness, microns	300	500
Vapour Transmission Rate, g/m ² /24hr	40.7	34.8
Vapour Diffusion Coefficient(μ)	3440	2050
Equivalent Air Layer Thickness (S _d), m	1.0	1.0

Test #: 1594. REDUCTION IN WATER ABSORPTION – ASTM C642-90

TEL Lab No.	Sample	Water Absorption %w/w	Mean Water Absorption %w/w	Reduction in Water Absorption %
P10958	Control	1.62	1.67	88
P10959	Control	1.71		
P10960	Insultec 1 System	0.22	0.20	
P10961	Insultec 1 System	0.19		

Test #: 1593. REDUCTION IN CHLORIDE PENETRATION
– BS 1881: Part 124:1988 “Methods of Analysis of Hardened Concrete”

TEL Lab No.	Sample	Chloride Content %w/w	Mean Chloride Content %w/w	Reduction in Chloride Penetration %
P10962	Control	0.189	0.192	90
P10963	Control	0.194		
P10964	Insultec 1 System	0.018		
P10965	Insultec 1 System	0.022	0.020	

Test #: 1706. CHLORIDE ION DIFFUSION RESISTANCE
Section 5.3 of “Chemical testing Procedures Manual,
TEL Perth Laboratory” Doc. No. 01411/90/4683

TEL Sample no: P10939 (Primer), P10940 (TopCoat) Test Piece: P11754

Driving cell NaCl concentration, M	5.0
Volume of driving and measuring cells, mL	550
Thickness of composite, mm	6.5
Measured dry film thickness of system, microns	250
Cross sectional area of test specimen, cm ²	54.7
Temperature during tests, °C	23 +/- 2
Duration of test, days	27
Chloride Ion Diffusion Coefficient, m ² /sec	2 x 10 ⁻¹³

Test #: 1520 & 2973. CARBON DIOXIDE DIFFUSION RESISTANCE
– AS/NZS 4548.5 - 1999

TEL. Sample No.	P10939 & P10940	P18325
Norminal Dry Film Thickness, microns	300	500
O ₂ Diffusion Coefficient, cm ² sec ⁻¹	8.2 x 10 ⁻⁷	7.3 x 10 ⁻⁷
CO ₂ Diffusion Coefficient, cm ² sec ⁻¹	6.2 x 10 ⁻⁷	3.4 x 10 ⁻⁷
Diffusion Resistance Coefficient (μ)	23970	488600
Equivalent Air Layer Thickness (R), m	72	244
Equivalent Thickness of Concrete(S _c), cm	48	61

The full report is 19 pages long – see original in the source document pdf (starts p 43)