

Technical Report



Liquid Water and Water Vapour Permeability Testing

For

Northern Paint and Coatings Ltd

Re-Issued Final Report

Work Carried Out By

David Corrigan

Quality Manager

Dr Laura Pilon

PRA Ref: 77780-715c

30 June 2022

[PRA World Limited](#)

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Analysis Report

PRA Ref. Number 77780-715c
Date Received 02 November 2020
Date lab activities 08 November 2020 – 01 February 2021
Date Issued 30 June 2022
Client Northern Paints & Coatings
Unit 3b Berwick Road Ind Est
Wooler
NE71 6AH
FAO: Rob Buck
Work Requested Liquid Water and Water Vapour
Permeability Testing
Samples Submitted One mineral based exterior coating

Work Carried out by



.....
David Corrigan

Approved by



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Dr Laura Pilon
Authorised Signatory

This report shall not be reproduced except in full without approval of the laboratory. Results relate only to the item(s) tested and apply to the sample(s) as received.

1 Introduction

One mineral based exterior coating was submitted for testing with the following customer reference:

1. Earles Masonry Paint*

*Product name changed from 'Snowcem Plus – Masonry Paint'

2 Test Procedures

2.1 Water Vapour Permeability BS EN ISO 7783:2018

Triplicate flat samples of the coating were cast into a mould on a PTFE coated plate and allowed to cure in a humid atmosphere at 23°C for a period of 72 hrs. Following the initial stage of curing the samples were cured at 23°C and 50% RH until no further mass change was observed (7 days). The water vapour permeability of the coating was assessed using the wet cup method described in BS EN ISO 7783:2018. The water vapour diffusion-equivalent air thickness (S_d) and water vapour resistance factor (μ) have also been calculated for information only.

2.2 Liquid Water Permeability and Capillary Absorption BS EN 1062-3:2008

The liquid water permeability of the applied coating was determined in accordance with BS EN 1062-3:2008 and classified in accordance with BS EN 1062-1:2004.

3 Results

3.1 Water Vapour Permeability BS EN ISO 7783:2018

Earles Masonry Paint			
Calculation	Mean Film Thickness (μm)	Result	EN 1062-1 Classification
V ($\text{g}/\text{m}^2/24$ hours)	1182	24648*	V ₁ High (> 150)

* BS EN ISO 7783:2018 states that values of $V > 690 \text{ g}/\text{m}^2/24$ hours are not accurately determined using this method

For Information Only

Calculation	Result	EN 1062-1 Classification
S_d (m)	0.0008	Low (< 0.14)
μ	0.71	N/A

3.2 Liquid Water Permeability and Capillary Absorption BS EN 1062-3:2008

Earles Masonry Paint	
Mean liquid water permeability, W ($\text{kg}/\text{m}^2 \cdot \text{h}^{0.5}$)	EN 1062-1 Classification
1.519*	W ₁ High (> 0.5 $\text{kg}/\text{m}^2 \cdot \text{h}^{0.5}$)

* BS EN 1062-3:2008 states that values of $W > 0.5 \text{ kg}/\text{m}^2 \cdot \text{h}^{0.5}$ are not accurately determined using this method

End of Report

Template Document Amendments

Version number	Date Issued	Issued by	Changes	Approved
1.1	6 th July 2018	David Corrigan	Converted to controlled document format	Steve Ryley
1.2	12 June 2019	Steve Ryley	Lab activities date added	Steve Ryley
1.3	30 th July 2019	Laura Pilon	Additional statements added	Laura Pilon
1.4	20 th Sept 2019	Laura Pilon	Headers/footers updated	Laura Pilon