



TEST REPORT ON SOLIDS BY WEIGHT

Client	Kadisco Paint and Adhesive Industry S.C P.O Box: 120919 Ethiopia		
Project Name	N.G	Lab Report No.	WD-R-231023-0648/1
Sample Description	Kadisco Damp Proof	Lab Request No.	WD-Q-231023-0163
Source	N.G	Sample No.	WD-S-231023-0617
Test Method	ASTM D2369-20	Date Received	23/10/2023
Type of Air oven used	Hot Air oven	Date Tested	28/10/2023
Drying Type	1 hour flash dry at 105°C	Date Reported	14/11/2023
Wimpey Lab Ref No.	23102331	Cast Date	28/10/2023
Room Temperature	23°C	Tested By	PK
Relative Humidity	50%		

Test Results

Specimen Number	Unit	Result
1	%	53.92
2		48.72
Average		51.32

Remarks: None.

Signed for and on behalf of Wimpey Laboratories L.L.C.

S.Sarath Kumar
Head of Department

Test results relate only to the samples tested

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TEST REPORT ON PULL-OFF ADHESION STRENGTH

Customer Name	Kadisco Paint and Adhesive Industry S.C P.O Box: 120919 Ethiopia		
Project Name	N.G	Lab Report No.	WD-R-231023-0648/2
Sample Description	Kadisco Damp Proof	Lab Request No.	WD-Q-231023-0163
Source	Kadisco Paint and Adhesive Industry S.C	Sample No.	WD-S-231023-0617
Test Method	ASTM D4541-22	Wimpey Ref No.	23102331
Machine Details	Manufacturer: Elcometer Model: 510-50T Serial Number: WA 22213	Date Received	23/10/2023
Location	In-House	Date Tested	04/11/2023
Test Temperature & Relative Humidity	23°C & 50%	Date Reported	14/11/2023
Substrate Used	Concrete	Cast Date	28/10/2023
Adhesive Used	Two Component Epoxy	Curing Condition	7 days at 23°C
Tested By	SU		

Test Procedure

The general pull-off test is performed by securing a loading fixture (dolly, stud) normal (perpendicular) to the surface of the coating with an adhesive. After the adhesive is cured, a testing apparatus is attached to the loading fixture and aligned to apply tension normal to the test surface. The force applied to the loading fixture is then gradually increased and monitored until either a plug of material is detached, or a specified value is reached. When a plug of material is detached the exposed surface represents the plane of limiting strength within the system.

The nature of the failure is qualified in accordance with the percent of adhesive and cohesive failures, and the actual interfaces and layers involved.

The pull-off strength is computed based on the maximum indicated load

Description	RESULTS		
Test Number	1	2	3
Test Position	Vertical	Vertical	Vertical
Size of Dolly (mm)	20	20	20
Max. Load Applied (N)	857.2	901.2	715.9
Pull off Strength (N/mm ²)	2.73	2.87	2.28
Average Pull off Strength (N/mm ²)	2.63		
Mode of Failure	100% Failure observed from Concrete		

Remarks: None

Signed for and on behalf of Wimpey Laboratories LLC

S. Sarath Kumar
Head of Department

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TEST REPORT ON TENSILE STRENGTH

Client	Kadisco Paint and Adhesive Industry S.C P.O Box: 120919 Ethiopia		
Sample Description	Kadisco Damp Proof	Lab Report No.	WD-R-231023-0648/3
Source	N.G	Lab Request No.	WD-Q-231023-0163
Curing and test condition	Temperature: 23°C Relative Humidity: 50%	Sample No.	WD-S-231023-0617
Sampling Method	ASTM D412-16(2021)	Date Received	23/10/2023
Test Method	ASTM D412-16(2021)	Casting Date	28/10/2023
Specimen Type	Test Method A – Die C	Curing Time	7 DAYS
Rate of Speed	500 mm/minute	Date Tested	04/11/2023
Wimpey Ref No.	23102331	Date Reported	14/11/2023
Tested By	PK		

Test Results

Specimen Number	Width (mm)	Thickness (mm)	Maximum Force (N)	Tensile Strength (N/mm ²)	Elongation %
1	6.0	0.48	4.86	1.69	331
2	6.0	0.46	5.05	1.83	428
3	6.0	0.50	5.32	1.77	552
4	6.0	0.55	5.90	1.79	662
5	6.0	0.50	5.52	1.84	414
Average				1.78	478

Remarks: None

Signed for and on behalf of Wimpey Laboratories L.L.C.

S. Sarath Kumar
Head of Department

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TEST REPORT ON CRACK BRIDGING ABILITY

Customer Name	Kadisco Paint and Adhesive Industry S.C P.O Box: 120919 Ethiopia		
Project Name	N.G	Lab Report No.	WD-R-231023-0648/4
Sample Description	Kadisco Damp Proof	Lab Request No.	WD-Q-231023-0163
Source	Kadisco Paint and Adhesive Industry S.C	Sample No.	WD-S-231023-0617
Test Specification	EN 1062-1:2004	Wimpey Ref No.	23102331
Test Method	EN 1062-7:2004	Date Received	23/10/2023
Nature of Substrate	Concrete	Date Tested	04/11/2023
Substrate Dimension(mm)	50 W x 75 L	Date Reported	14/11/2023
No. of coat & Method of application	2 Coat, Brush	Cast Date	28/10/2023
Test Condition	Temperature: 23°C Relative Humidity: 50%	Tested By	SU

Test Results

Test	Crack Width (mm)	Observation
Crack Bridging Ability	3.2	No sign of cracks, loss of adhesion or any other type of failure was observed after completion of the up and down movement.

Remarks: None.

Signed for and on behalf of Wimpey Laboratories L.L.C

S. Sarath Kumar
Head of Department

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Test Report on Depth of Penetration of Water Under Pressure Positive

Customer Name	: Kadisco Paint and Adhesive Industry S.C	Report No.	: WD-R-231023-0648/5
Address	: Ethiopia	Request No.	: WD-Q-231023-0163
Contractor	: N.G	Sample No.	: WD-S-231023-0617
Consultant	: N.G	Date Reported	: 06/12/2023
Project Name	: N.G	Sampling Certificate	: N.G
Sample Description	: Kadisco Damp Proof	Sample Casted on	: N.A
Source of Material	: Kadisco Paint and Adhesive Industry S.C	Date Test Started	: 21/11/2023
Sample Identification	: N.G	Date Test Completed	: 24/11/2023
Mixcode	: N.G	Sampling Method	: N.A
Date of Sampling	: N.G	Lot Size m ³	: N.G
Sample Received Date	: 23/10/2023	Lot No.	: N.G
Moisture Condition	: N.A	Slump Measure mm	: N.G
Test Method Variation	: None	Sample size mm	: 150x150mm
Specification Strength	: N.G	Age of Test	: N.A
Location	: In House	Reqd. Test Age	: 72 Hours
Surface Treatment Done	By: Wimpey Lab	Pressure Applied	: 5 Bar
Test Method	: BS EN 12390-8		
Concrete Mix grade	: N.A		

Test Results

Sample Reference	WD-S-231023-0617		
Client's Reference	Control Sample 1	Test Sample 1	Test Sample 2
Appearance of Specimen	Good	Good	Good
Direction of application of water pressure with respect to the casting direction	Normal	Normal	Normal
Observation of presence of water leakage on the surface of sample during test	No Leakage	No Leakage	No Leakage
Water Penetration Depth (Maximum) (mm)	8	Nil	Nil

Remarks: Sample Applied on the concrete surface.

Legends: N.A. = Not applicable, N.G.= Not Given

Signed for and on behalf of Wimpey Laboratories LLC

S. Sarath Kumar
Head of Department

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TEST CERTIFICATE

Kadisco Paint & Adhesive Industry S.C
Dubai, UAE

Report No: WD-R-231021-0715
Sample No: WD-S-231021-0697
Date of Report: 29/11/2023

Introduction: As per the request received from M/s. Kadisco Paint & Adhesive Industry S.C on 21th October 2023, the sample of paint was tested for Carbon Dioxide Permeability as per BS EN 1062-6:2002 Method A.

Sample Type : Paint
Sample Request No. : WD-Q-231021-0131
Sample Received Date : 21/10/2023.
Date of Test : 22/10/2023-29/11/2023
Tested By : MR

General Information

Sample Description : Kadisco Damp Proof

Carbon Dioxide Permeability

The determination of the carbon dioxide permeability was carried out in accordance with BS EN 1062-6:2002 Method A "Paints and varnishes – Coating materials and coating systems for exterior masonry and concrete – Part 6: Determination of Carbon dioxide permeability" via Gravimetric method (Method A).

The coating system was rolled upon unglazed tile of area 100cm², which is exposed to the measuring gas, and the diffused carbon dioxide is determined quantitatively. Three test specimens were prepared for determination. Store the test specimens in the standard atmosphere as defined in BS EN 23270 (23±2°C and 50±5%) was placed in a separate conditioning container for 7 days. Afterwards, condition the test specimen at a temperature of 70°C for 7 days and kept at standard atmosphere for 24 hrs. The test specimen seals with a test cell containing an absorbent for carbon dioxide so that the cell is gas-tight to the surroundings. The test cell is kept in a dry carbon dioxide atmosphere at 23±2°C and weighed at regular intervals. The carbon dioxide permeability was calculated from the increase of mass. The determination was completed when a steady state is reached.

For control purposes, a standard reference film of known diffusion resistance number was measured in each series of determinations. The test specimens have been tested until the mass increase of the test cell remains constant during two subsequent intervals.

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Test Results

Test	Method	Unit	Result
Specimen thickness	BS EN 1062-6:2002 Method A	μm	260
Average carbon dioxide permeability		g/m ² d	0.545
Diffusion equivalent air layer thickness in meters (S _D)		m	455.05
Diffusion resistance number		-	1.75x10 ⁶
Carbon dioxide diffusion coefficient of the coating		cm ² s	0.857x10 ⁻⁷
Diffusion equivalent thickness of concrete (S _C)		cm	11.37
Classification of coating material and coating systems for exterior masonry and concrete	DIN EN 1062-1:2004-08	-	C1

Classification for Carbon dioxide Permeability as per EN 1062-1		
Class	Requirement	
	g/m ² .d	m
C ₀	No requirement	
C ₁	<5	>50

Notes

- Sc is calculated assuming an average grade concrete where the μ- value had been estimated at 400
- D_{CO2} for an uncoated plate is 1 X 10⁻³ cm²s⁻¹
- Carbon dioxide diffusion resistance: Class 1 (Classification in accordance with BS EN 1062-1:2004 & BS EN 1062-6:2002)
- Klopfer criterion for effective anti-carbonation coating is SD greater than 50 meters.

Note: As the values are very low, No carbonation as per BS EN 1062-6:2002 Method A

Remark: None

Signed for and on behalf of Wimpey Laboratories LLC

Anandu VS
Section Incharge Chemistry – Specialty

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