TEST REPORT

Report No.: MR-220323-130 Rev.01

Client / Establishment	: Jadara Building Materials Dammam 2nd Industrial City

Sample ID	: MS-220323-153
Sample Receiving Date	: 22/03/2023
Reporting Date	: 06/07/2023
Date of Analysis	: 22/03/2023-16/06/2023
Tested by	: RE/SC
Issue No	: 02 (Re-Issue Date: 18/01/2024)

Sample Information:

Sample Description	: Aluminum Composite Panel
Size	: 30cm x 30cm 0.30
Brand Name	: D LTA Aluminum Composite Panel
Classification	: FR3-B1

Brief Evaluation of the Results

	Test	Compliance
MS-220323-153	Physico-Chemical Analysis	Pass#

#The tested parameter comply with SASO 2752:2019 specification limit

The corresponding test results are furnished in following page

Prepared by

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Material Science Division (MSD)
Employee Code: METS AJ EC 220

Verified by

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Issue No: 2

Form MRF 27

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Report No.: MR-220323-130 Rev.01

Test Results: Date of analysis: 22/03/2023-16/06/2023

Parameter		Test Method	Unit	Result	Specification Limit: SASO 2752:2019
Material*					
Dimension	Length	SASO 2752:2019 Cl. 10.3.1	mm	300.05	±3
	Width	SASO 2752:2019 Cl. 10.3.1	mm	300.02	±2
	Thickness	SASO 2752:2019 Cl. 10.3.2	mm	4.36	±0.2
Deviation of diagonal		SASO 2752:2019 Cl. 10.3.3	mm	1.11	≤5
Straightness at sides		SASO 2752:2019 Cl. 10.3.4	mm/m	0.28	≤1
Warpage		SASO 2752:2019 Cl. 10.3.5	mm/m	2.03	≤5
Appearance of the panel					
Wave		SASO ISO 4628 Parts (1 to 5,7,10 / 2016) part 6 / 2011 & part 8 / 2012	-	Absent	Not allowed
Bubble			-	Absent	Not allowed
Spot-Size			mm	Not observed	≤3
Spot-Number			-	Not observed	≤3/m²
Cut			-	Absent	Not allowed
Concave-Convex			-	Absent	Not allowed
Scratch			-	Absent	Not allowed
Stain			-	Absent	Not allowed
Color Deviation		SASO ASTM D 2244-2014	-	Pass	Non-obvious in visual observation, ΔE≤2
Panel mechanical properties requirements					
Coating thickness		SASO ISO 2360:2012	µm	35.3	≥30
Pencil hardness*		SASO GSO ISO 15184:2015	-	F-3H	≥HB
Coating Flexibility* (T- Bent test)		ISO 17132:2007	-	Pass	≤2 Without any cracks damage on the coating
Adhesion Grade*		SASO ISO 2409:2020	Grade	0*1	≤1
Impact resistance(kg.cm)*		SASO ISO 6272-2:2014	-	No cracks observed at 50 kg.cm	Shall not be any peel off and cracks
Abrasion resistance		SASO ASTM D 968:2017	L/µm	>2	≥ 2
Stain resistance		SASO ISO 11998:2007	%	2	≤5
Chemical resistance*					
Alkali resistance		SASO ISO 2812-1:2014	-	Resistant	Shall be resistant
Acid resistance		SASO ISO 2812-1:2014	-	Resistant	Shall be resistant
Oil resistance		SASO ISO 2812-1:2014	-	Resistant	Shall be resistant
Solvent resistance		SASO ISO 2812-1:2014	-	Resistant	Shall be resistant
Hot water resistance*		SASO ISO 2812-2:2014	-	Resistant	Shall be resistant

Issue No: 2
Form MRF 27

Report No.: MR-220323-130 Rev.01
Date of analysis: 22/03/2023-16/06/2023

Test Results:

Parameter	Test Method	Unit	Result	Specification Limit: SASO 2752:2019
Drum peel strength	ASTM D1781-98 (2021)	N.mm/mm	111	≥100
Thermal properties (core thermal properties)				
Heat Deflection Temperature	SASO ISO 75-2:2014	°C	168	85 Min
Linear Thermal Expansion Coefficient	ASTM D696:16	µm/m-°C	134	200 Max
Self-ignition temperature	SASO ASTM D1929:2015	°C	>350	343 Min
Thermal conductivity of core,K_c	ASTM C 518-17 / BS EN ISO 6946:2007	W/mk	0.0276	-
Thermal resistance of core, R_c		m^2K/W	0.163	-
Internal surface resistance, R_{SI}			0.13	-
External surface resistance, R_{SE}			0.04	-
Total Thermal resistance, R_T			0.333	≥0.06
Thermal transmittance (U value)	ASTM C 518-17	$W/m^2.K$	3.003	≤4.5
Accelerated Weathering at 2000 hours*	SASO ISO 16474-2:2015	-	No change observed	Shall have no change
Gloss Deviation*	SASO ISO 2813:2015	-	4	≤10
Salt Fog Resistance at 2000 hours	ISO 11997-1:2017	-	No change observed	Shall have no change

* Parameter accredited by IAS in accordance with ISO/IEC 17025:2017
*1 The edges of the cuts are completely smooth, none of the squares of the lattice is detached.

Remarks: 1. The Report was revised to include additional sample information as per client request.
2. Sample information provided by client.

The above test results are only applicable to the sample (s) referred above. This report shall not be reproduced except in full, without the written approval of METS laboratory.
For further clarification of reports, please contact qc@metslab.com

-End of Report-

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TEST REPORT

Report No.: MR-260224-001

Client / Establishment	: M/s. Jadara Building Materials Dammam 2nd Industrial City
Sample ID	: MS-260224-010
Sample Receiving Date	: 26/02/2024
Reporting Date	: 19/03/2024
Date of Analysis	: 26/02/2024-18/03/2024
Tested by	: RE
Issue No	: 01 (Re-Issue Date: NA)

Sample Information:

Sample Description	: Aluminum Composite Panel
Size	: 30cm×30cm 0.45
Brand Name	: D LTA Aluminum Composite Panel / D LTA Plus Aluminum Composite Panel
Classification	: FR3 - B1

Test Results:

Parameter	Test Method	Unit	Result
180 degrees Peel Strength*	SASO ISO 8510-2:2008	N/mm	9.87
Shear Strength	ISO 6361-2:2014	MPa	26
Bending Strength	ISO 6361-2:2014	MPa	115
Bend Elastic Modulus	ISO 6361-2:2014	MPa	22188

Note: (i)* Parameter accredited by IAS in accordance with ISO/IEC 17025:2017
(ii) No traceability details provided by client.
Test Location: Ajman

Prepared by

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Verified by

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-End of Report-