

## Test Report

Report Number: 160316008SHF-BP-1

**Applicant Name:** FACTORY OF UNITED MINING INDUSTRIES **Report Date:** 2016.4.18

**Applicant Address:** AL-RAZI STREET, LIGHT INDUSTRIAL AREA, YANBU AL-SINAYAH, YANBU-KSA

**Attn:** MR. SHAKEER HUSSAIN

### Sample Description:

Product: Fiber cement board  
Model: 6mm  
Sample Quantity: 15 pieces  
Sample ID: S160316008SHF.001  
Date Received: 2016.2.24  
Date Test Conducted: 2016.3.16~2016.4.18

### Tests Conducted:

As requested by the applicant, for details refer to attached pages(s).

### Conclusion:

For details refer to attached page(s).

The conclusions of this test report may not be used as part of the requirements for Intertek product certification. Authority to Mark must be issued for a product to become certified.

**Test Items, Method and Results:**

Test Items	Test Method	Test Requirements			Test Results	Verdict
		Grade	Wet (Mpa)	Equilibrium (Mpa)		
Flexural strength	ASTM C1185-08(2012)	I	≥4	≥4	Wet: 5.7 Mpa	Grade I
		II	≥7	≥10		
		III	≥13	≥16	Equilibrium: 8.7 Mpa	
		IV	≥18	≥22		

**Note:**

1. The requirements was for Type A sheets in accordance with ASTM C1186-08(2012).

**Test Items, Method and Results:**

Test Items	Test Method	Test Requirements	Test Results	Verdict
Density	ASTM C1185-08(2012)	Comply with the value stated by the manufacturer.	Stated: no claimed Tested: 1270 kg/m <sup>3</sup>	NA

## Note:

1. The requirements was in accordance with ASTM C1186-08(2012).

**Test Items, Method and Results:**

Test Items	Test Method	Test Requirements	Test Results	Verdict
Length and width	ASTM C1185-08(2012)	Tolerance: $\pm 0.5\%$ & max. variation $\pm 6\text{mm}$	Norminal: Length: 2400 mm Width: 1200 mm Tested: Length: 2397 mm Tolerance: -0.1 % Max. Variation: -3 mm Width: 1200 mm Tolerance: 0 % Max. Variation: 0 mm	Pass
Thickness		$\pm 1.0$ mm	Norminal: 6 mm Tested: 6.5 mm	Pass
Squareness		$\leq 2.6\text{mm/m}$	0.8 mm/m	Pass
Edge Straightness		$\leq 2.6\text{mm/m}$	Length: 0.3 mm/m Width: 0.8 mm/m	Pass

**Note:**

1. The requirements was in accordance with ASTM C1186-08(2012).

**Test Items, Method and Results:**

Test Items	Test Method	Test Requirements	Test Results	Verdict
Mositure movement	ASTM C1185-08(2012)	The linear variation with change in moisture content shall be stated in length based on a relative humidity change from 30 to 90%.	Length change: 0.10 % Width change: 0.07 %	NA

Note:

1. The requirements was in accordance with ASTM C1186-08(2012).

**Test Items, Method and Results:**

Test Items	Test Method	Test Requirements	Test Results	Verdict
Water absorption	ASTM C1185-08(2012)	Submersion time: 48 hour Room temperature Increase in weight	Absorption: 37.9 %	NA

## Note:

1. The requirements was in accordance with ASTM C1186-08(2012).

**Test Items, Method and Results:**

Test Items	Test Method	Test Requirements	Test Results	Verdict
Mositure content	ASTM C1185-08(2012)	Equilibrium condition: 23°C, 50% R.H. Dry condition: 90°C in oven	M: 10.3 %	NA

## Note:

1. The requirements was in accordance with ASTM C1186-08(2012).

**Test Items, Method and Results:**



Test Items	Test Method	Test Requirements	Test Results	Verdict
Water Tightness	ASTM C1185-08(2012)	Not prohibited from showing traces of moisture on the underside of the sheet, but in no instance shall there be any formation of drops of water.	There was no drops of water but showing traces of moisture on the underside of the sheet.	Pass

## Note:

1. The requirements was for Type A sheets in accordance with ASTM C1186-08(2012).



**Test Items, Method and Results:**

Test Items	Test Method	Test Requirements	Test Results	Verdict
Frost Resistance	ASTM C1185-08(2012)	For 50 cycles, specimens shall not show visible cracks or structural alteration such as to affect their performance in use. The ratio of retained strength shall be at least 80%	Visible check:  Retained ratio: 	Pass/Fail

Note:

1. The requirements was for Type A sheets in accordance with ASTM C1186-08(2012).


**Test Items, Method and Results:**

Test Items	Test Method	Test Requirements	Test Results	Verdict
Warm Water Resistance	ASTM C1185-08(2012)	After 56 days submersion at 60° C, specimens shall not show visible cracks or structural alteration such as to affect their performance in use. The ratio of retained strength shall be reported.	Visible check:  Retained ratio:	Pass/Fail

Note:

1. The requirements was for Type A sheets in accordance with ASTM C1186-08(2012).

**Test Items, Method and Results:**

Test Items	Test Method	Test Requirements	Test Results	Verdict
Heat Rain Resistance	ASTM C1185-08(2012)	For 25 cycles, specimens shall not show visible cracks or structural alteration such as to affect their performance in use.	Visible check: 	Pass/Fail

## Note:

1. The requirements was for Type A sheets in accordance with ASTM C1186-08(2012).

**Appendix A: Sample received photo**



**Approved by:**

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The End of Report

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