

FUGRO TECHNICAL SERVICES LIMITED

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MaterialLab

Client Ref. : --
Report No. : 133343ST150758

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REPORT ON TEMPERATURE MEASUREMENT ON MIRROR

Information Supplied by Client

Client : DSA Co., Ltd.
Project : Testing of Mirror
Sample Description : Mirror
Nominal thickness : 6 mm

Laboratory Information

Lab. Sample I.D. : ST150758/1
Date Received : 20 August 2015
Date Tested : 02 September 2015
Test Method : In accordance with our in-house method ref. STMS-3360A

Test Results

Lab. Sample I.D.	At Time (min)	Temperature (°C)						Observation
		Point 1	Point 2	Point 3	Point 4	Point 5	Point 6	
ST150758/1	15	39.15	66.50	50.30	39.95	29.95	43.15	No breakage or significant defect of the Mirror
	30	44.40	75.30	79.25	36.80	31.10	47.25	No breakage or significant defect of the Mirror
	45	47.35	75.75	84.15	36.30	31.90	48.95	No breakage or significant defect of the Mirror
	60	48.75	76.15	84.45	39.85	32.40	49.45	No breakage or significant defect of the Mirror
	75	46.85	77.20	87.65	37.95	32.25	48.10	No breakage or significant defect of the Mirror
	90	49.00	80.70	99.35	38.65	33.00	50.25	No breakage or significant defect of the Mirror
	105	51.95	83.00	107.40	39.50	33.15	50.70	No breakage or significant defect of the Mirror
	120	50.65	84.00	98.70	39.65	33.40	50.65	No breakage or significant defect of the Mirror
	135	48.20	69.80	78.90	39.40	33.40	46.15	No breakage or significant defect of the Mirror
	150	48.05	74.15	69.10	38.30	33.30	51.00	No breakage or significant defect of the Mirror
	165	49.35	79.15	69.15	38.80	33.65	53.65	No breakage or significant defect of the Mirror
	180	50.15	80.50	69.45	39.50	34.05	54.35	No breakage or significant defect of the Mirror
	195	50.60	80.45	70.50	39.80	34.25	54.40	No breakage or significant defect of the Mirror
	210	51.25	81.80	70.35	40.10	34.55	55.15	No breakage or significant defect of the Mirror
	225	51.25	82.25	69.65	40.35	34.65	55.15	No breakage or significant defect of the Mirror
	240	51.25	82.55	68.65	40.35	34.80	54.95	No breakage or significant defect of the Mirror
	255	51.50	81.90	69.25	40.40	34.95	55.30	No breakage or significant defect of the Mirror
	270	51.65	83.25	68.40	40.50	35.00	55.60	No breakage or significant defect of the Mirror
	285	51.85	83.25	68.80	40.50	35.10	55.85	No breakage or significant defect of the Mirror
	300	52.30	83.25	71.10	40.55	35.10	55.85	No breakage or significant defect of the Mirror
315	52.40	82.90	71.40	40.70	35.25	55.65	No breakage or significant defect of the Mirror	
330	53.10	82.50	75.30	40.75	35.15	56.45	No breakage or significant defect of the Mirror	
345	52.40	83.20	70.65	40.70	35.05	55.90	No breakage or significant defect of the Mirror	
360	52.35	84.10	69.70	40.65	35.00	55.50	No breakage or significant defect of the Mirror	

Remarks : 1.) The test results relate only to the samples tested.
2.) The test configuration and sample after test are shown in the photographs on page 4 of this report.

Checked by :  Date : 11 SEP 2015 Certified by :  Date : 11 SEP 2015

Chan Chun Wai Ivan
Manager (Product Testing Laboratory)

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Method Statement Reference: STMS-3360A

METHOD STATEMENT FOR TEMPERATURE MEASUREMENT ON MIRROR

(In-house method)

1. The Mirror panel of 1900mm x 790mm in size to be tested shall be installed and erected as normal on a side of granite. A electric stove with 2 heating elements and a LPG stove shall be installed in front of the Mirror wall at the center longitudinal line of the granite with the distance as specified in figure 1.
2. Five thermocouple wires shall be positioned on the wall at 30mm and 170mm height from the top surface of the granite. Moreover, 1 thermocouple shall be positioned between the stoves on the granite. They are positioned separately as specified in figure 1.
3. A Chinese Wok and a couple of Kettle filled with an amount of water shall be placed upon the heating elements separately.
4. Test configuration is shown in the figure reference STMS-3360A/1.
5. Water in each cooking utensil shall be boiled simultaneity at the highest fire until boiling. After that, the Chinese wok and the kettle shall be kept to be on fire for 120 minutes. After 120 minutes, the wok shall be replaced by a kettle and the test shall be continued up to 360 minutes.
6. During the time, water shall be kept to an acceptance level by filled with water.
7. The temperature raised at each measurement points shall be recorded at an interval of 15 minutes during the test. In the meanwhile, the fire of LPG and electric stoves shall be kept on fire continuously until the completion of measurement at 6 hours.
8. Any breakage or significant defect shall be recorded for reporting.

Certified by : _____



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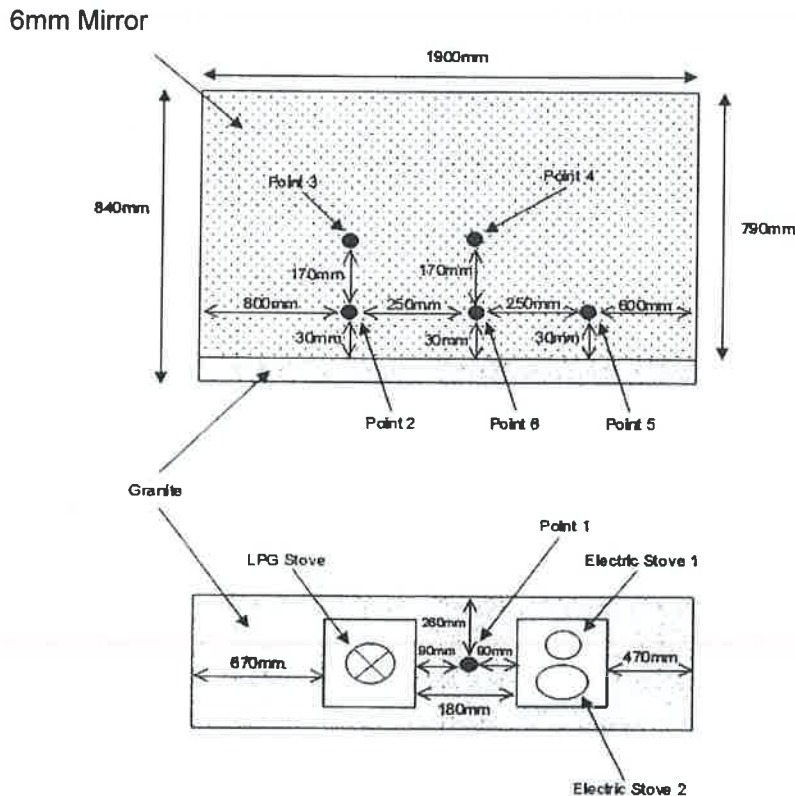


Figure 1 Test configuration and the thermocouple points

Certified by : han

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Test Configuration
Sample I.D.: ST150758/2



Test Configuration
Sample I.D.: ST150758/2



Sample After Test
Sample I.D.: ST150758/2



Test Configuration
Sample I.D.: ST150758/2



Test Configuration
Sample I.D.: ST150758/2

**** End of Report ****