

Dubai Central Laboratory

Engineering Materials Laboratory Section – Structural Unit

TEST REPORT

THERMAL TRANSMISSION PROPERTIES BY HEAT FLOW METER

REPORT NO. : 2016050025 DATE : 24/04/2016

WEB REQUEST NO. : DCL-04042016-0243

REQUEST NO. : 2016029763 SAMPLE NO. : 2016041852

PROJECT NO. : PS-1516

PROJECT NAME : TESTING SERVICE FOR STYRO INSULATIONS MAT.IND.LLC

CONSULTANT : NO SPECIFIC CONSULTANT

CONTRACTOR : NO SPECIFIC CONTRACTOR

LOCATION : STYRO Ltd.

SOURCE : STYRO INSULATION MAT.IND - SHARJAH

SAMPLE DESCRIPTION : MOLDED (EXPANDED) POLYSTYRENE SHEET

SAMPLE TYPE : EPS -STYRO GRAYPOR 220

SUPPORT / FACING : NIL

NOM. THICKNESS (mm) : 50 NOM. DENSITY (kg/m³) : 18-22

Date of Sampling	: 04/04/2016	Time	: 09:00	Lot No.	: NG
Date of Receiving Sample	: 05/04/2016	Time	: 07:30	Lot Size	: NG
Size of Sample	: 2pcs.	Area No.	: -	Sender No.	: STYRO GRAYPOR 220

CALIBRATION DETAILS

TYPE OF MATERIAL USED FOR CALIBRATION	STANDARD REFERANCE MATERIAL 1450C687
R VALUE @ 35°C [(m ² K) / W]	0.7169
DATE OF CERTIFICATION	10/12/2010
SOURCE OF CERTIFICATION	National Institute of Standards & Technology [NIST] - U.S.A.
EXPIRY & CERTIFICATION TEST NUMBER	Refer NIST special publication 260-130

TEST PARAMETERS

DATE SPECIMEN RECEIVED	05/04/2016
TEST START DATE	06/04/2016
NOM. THICKNESS OF SPECIMEN (mm)	50
TEMPERATURE, RH & TIME AT WHICH SPECIMEN CONDITIONED	35±2°C, 60±5% RH, 48 h
DATE OF CALIBRATION	12/04/2016
MEAN TEMP.(SET) °C	35
TEMPERATURE DIFFERENCE (ΔT) °C	20
NO. OF HEAT FLUX TRANSDUCER USED	2
TEST ARRANGEMENT	HORIZONTAL
METERING (TEST) AREA	100mm X 100mm

**AUTHORIZED BY
HEAD OF UNIT**

This report is computer approved, it does not require any signature



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MEASURED VALUES

TEST / SPECIMEN NO.	THICKNESS (MEASURED) mm	DENSITY (MEASURED) kg/m ³	MEAN TEMP. °C	THERMAL CONDUCTIVITY		THERMAL RESISTANCE		AVG. TEMP. GRADIENT K/m	HEAT FLUX W/m ² .K.	CHANGE IN MASS (%)	DURATION OF TEST h:mm:ss
				W / (m • K)	Btu-in/h•ft ² °F	(m ² •K) / W	°F•h•ft ² / Btu				
1/1	49.0	21.6	34.38	0.0335	0.2323	1.4624	8.3052	418.74	1099	-0.021	00:55:27

*Uncertainty of measurement for thermal conductivity 0.0010 W/m•K @ 95% confidence level, k factor 2.
Abridged ASTM C 518 Test Report.*

SAMPLED BY : Mahmoud (Mfr) TESTED BY : NAZRUL

SAMPLES BROUGHT IN B : Mahmoud (Mfr)

SAMPLING METHOD : NOT GIVEN

SAMPLING REPORT NO. : -

TEST METHOD : ASTM C518 : 2010

TEST METHOD VARIATIO : NIL

REMARKS : THIS REPORT REPRESENTS THE SUBMITTED SAMPLE ONLY.

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