

Dubai Central Laboratory

Engineering Materials Laboratory Section – Structural Unit

TEST REPORT

THERMAL TRANSMISSION PROPERTIES BY HEAT FLOW METER

REPORT NO. : 2016050853 DATE : 25/04/2016

WEB REQUEST NO. : DCL-04042016-0241

REQUEST NO. : 2016029762 SAMPLE NO. : 2016041850

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 : STYRO GRAYPOR 180

SUPPORT / FACING : NIL

NOM. THICKNESS (mm) : 50 NOM. DENSITY (kg/m³) : 15 - 18

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 180

CALIBRATION DETAILS

TYPE OF MATERIAL USED FOR CALIBRATION	STANDARD REFERENCE 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	13/04/2016
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)	DENSITY (MEASURED)	MEAN TEMP.	THERMAL CONDUCTIVITY		THERMAL RESISTANCE		AVG. TEMP. GRADIENT	HEAT FLUX	CHANGE IN MASS	DURATION OF TEST
	mm	kg/m ³	°C	W / (m • K)	Btu-in/h•ft ² °F	(m ² •K) / W	°F•h•ft ² / Btu	K/m	W/m ² .K.	(%)	h:mm:ss
1/1	50.4	17.8	34.35	0.0339	0.2347	1.4880	8.4507	407.61	1077	0.099	00:58:08

*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 ISLAM

SAMPLES BROUGHT IN B : Mahmoud (Mfr)

SAMPLING METHOD : NOT GIVEN

SAMPLING REPORT NO. : -

TEST METHOD : ASTM C518 : 2010

TEST METHOD VARIATIOI : NIL

REMARKS : THIS REPORT REPRESENTS THE SUBMITTED SAMPLE ONLY.

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