

Dubai Central Laboratory

Engineering Materials Laboratory Section – Structural Unit

TEST REPORT

THERMAL TRANSMISSION PROPERTIES BY HEAT FLOW METER

REPORT NO. : 2014029401 DATE : 09/04/2014

WEB REQUEST NO. : DCL-27032014-0114

REQUEST NO. : 2014017894 SAMPLE NO. : 2014025706

PROJECT NO. : PS14-0041

PROJECT NAME : MODERN VENT. & INSUL.SYSTEMS FACTORY(HUYA)-K.S.A.

CONSULTANT : NO SPECIFIC CONSULTANT

CONTRACTOR : NO SPECIFIC CONTRACTOR

LOCATION : MODERN VENT. & INSUL.SYSTEMS FACTORY(HUYA)- DAMMAM, K.S.A.

SOURCE : MODERN VENT.&INSU.SYSTEMS FACTORY(HUYA)K.S.A.

SAMPLE DESCRIPTION : POLYISOCYANURATE RIGID FOAM INSULATION

SAMPLE TYPE : PIR PRE-INSULATED HVAC DUCT PANEL

SUPPORT / FACING : 80 MIC "AL" FOIL ON BOTH SIDES

NOM. THICKNESS (mm) : 20 NOM. DENSITY (kg/m³) : NG

Date of Sampling	: 19/01/2014	Time	: 10:00	Lot No.	: NG
Date of Receiving Sample	: 27/03/2014	Time	: 11:00	Lot Size	: NG
Size of Sample	: 4 Nos.	Area No.	: -	Sender No.	: NG

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	27/03/2014
TEST START DATE	30/03/2014
NOM. THICKNESS OF SPECIMEN (mm)	20
TEMPERATURE, RH & TIME AT WHICH SPECIMEN CONDITIONED	35±2°C, 60±5% RH, 72 h
DATE OF CALIBRATION	01/04/2014
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	21.0	64.7	34.82	0.0239	0.1660	0.8773	4.9825	955.14	1794	-0.065	00:55:10

*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 : ADAM MAHAT (Mfr.) TESTED BY : SANKAR RAJU

SAMPLES BROUGHT IN B : COURRIER

SAMPLING METHOD : NOT GIVEN

SAMPLING REPORT NO. : NG

TEST METHOD : ASTM C518 : 2010

TEST METHOD VARIATIOI : NIL

REMARKS : THIS REPORT REPRESENTS THE SUBMITTED SAMPLE ONLY.

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