

Dubai Central Laboratory

Construction Materials Laboratory Section - Structural Unit

TEST REPORT

COMPRESSIVE STRENGTH OF RIGID CELLULAR PLASTICS

Report No:	100573252	Request No:	EMTX-2020-023816
Project No:	PS20-1019	Report Date:	29/03/2020
Project Name:	TESTING SERVICE FOR EMIRATES PREINSULATED PIPES INDUSTRIES LLC		
Consultant:	NA		
Contractor:	EMIRATES PREINSULATED PIPES INDUSTRIES LLC		
Location:	EPPI PO BOX:73830 ICAD 1,MUSAFFAH ABUDHABI,UAE		
Source:	NOT GIVEN		
Sample Description:	SPRAY APPLIED RIGID CELLULAR POLYURATHANE INSULATION		
Sampling Date/Time:	19/03/2020 12:00 AM	Lot Number:	EPPI-PUF-LBA-001
Receiving Date/Time:	22/03/2020 09:25 AM	Lot Size:	- NA
Sample Size:	6 pieces	Sender No:	050 8243215
Material/Mix type:		Laying Date/Production Date:	14/03/2020
Nominal Size / Working Block Size L * T * H (mm) :		1000X500X50	

TEST RESULTS

PARAMETERS	RESULTS				
SAMPLE TYPE	NG				
SUPPORT / FACING	NIL				
NOM. THICKNESS (mm) :	50				
NOM. DENSITY (kg/m3) :	60				
SPECIFICATION LIMIT	NG				
SPECIMEN NOM. LENGTH (mm)	150				
SPECIMEN NOM. WIDTH (mm)	150				
SPECIMEN NOM. THICKNESS (mm)	50				
PRE-COND. TEMP, RH & DURATION	23+/-2deg C, 50+/-5% RH, 24 HRS				
TEST CONDITION	23+/-2deg C, 50+/-5% RH				
SPECIMEN NO.	1	2	3	4	5
AREA OF SPECIMEN (mm ²)	22952	22877	22801	22801	22952
CROSSHEAD SPEED (mm/min)	5.0	5.0	5.0	5.0	5.0
SPECIFIED DEFORMATION (%)	10	10	10	10	10
LOAD at SPECIFIED DEFORMATION (N)	7911.8	6662.2	7299.1	6025.4	7613.3
COMPRESSIVE STRENGTH AT SPECIFIED DEFORMATION (kPa)	344.7	291.2	320.1	264.3	331.7
AVERAGE COMPRESSIVE STRENGTH at SPECIFIED DEFORMATION (kPa)	310.4				
STANDARD DEVIATION	29.0				

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Dubai Central Laboratory
Construction Materials Laboratory Section - Structural Unit
TEST REPORT
COMPRESSIVE STRENGTH OF RIGID CELLULAR PLASTICS

Report No:	100573252	Request No:	EMTX-2020-023816
Sampled By:	EPPI-ANIL	Tested By:	NIMIAH
Samples Brought By:	EPPI - NISSAR	Testing Date:	24/03/2020 10:44 AM
Sampling Method:	NOT GIVEN	Sampling Report No:	
Test Method:	ASTM D1621: 2016	Test Method Variation:	NIL
Remarks:	THIS REPORT REPRESENTS THE SUBMITTED SAMPLES ONLY.		

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Construction Materials Laboratory Section - Structural Unit

TEST REPORT

APPARENT DENSITY OF RIGID CELLULAR PLASTICS

Report No:	100572689	Request No:	EMTX-2020-023816
Project No:	PS20-1019	Report Date:	26/03/2020
Project Name:	TESTING SERVICE FOR EMIRATES PREINSULATED PIPES INDUSTRIES LLC		
Consultant:	NA		
Contractor:	EMIRATES PREINSULATED PIPES INDUSTRIES LLC		
Location:	EPPI PO BOX:73830 ICAD 1,MUSAFFAH ABUDHABI,UAE		
Source:	NOT GIVEN		
Sample Description:	SPRAY APPLIED RIGID CELLULAR POLYURATHANE INSULATION		
Sampling Date/Time:	19/03/2020 12:00 AM	Lot Number:	EPPI-PUF-LBA-001
Receiving Date/Time:	22/03/2020 09:25 AM	Lot Size:	- NA
Sample Size:	6 pieces	Sender No:	050 8243215
Material/Mix type:		Laying Date/Production Date:	14/03/2020
Nominal Size / Working Block Size L * T * H (mm) :		1000X500X50	

TEST RESULTS

PARAMETERS	RESULTS		
SAMPLE TYPE	NG		
SUPPORT / FACING	NIL		
NOM. THICKNESS (mm) :	50		
NOM. DENSITY (kg/m3) :	60		
SPECIMEN NOM. THICKNESS (mm)	50		
PRE-CONDITIONING TEMPERATURE & HUMIDITY	23deg C, 50%RH		
TEST CONDITION TEMPERATURE & HUMIDITY	23deg C, 50%RH		
SPECIMEN NO.	1	2	3
SPECIMEN AVERAGE LENGTH (mm)	1000	1001	1000
SPECIMEN AVERAGE WIDTH (mm)	500	500	500
SPECIMEN AVERAGE THICKNESS (mm)	49.0	49.5	49.0
SPECIMEN DENSITY (kg/Cubic m)	60.7	60.9	60.9
AVERAGE DENSITY (kg/Cubic m)	61.0		
STANDARD DEVIATION	0.09		

Sampled By:	EPPI-ANIL	Tested By:	NIMIAH
Samples Brought By:	EPPI - NISSAR	Testing Date:	24/03/2020 10:44 AM
Sampling Method:	NOT GIVEN	Sampling Report No:	
Test Method:	ASTM D 1622/ D1622M-14	Test Method Variation:	NIL
Remarks:	THIS REPORT REPRESENTS THE SUBMITTED SAMPLES ONLY.		

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Construction Materials Laboratory Section - Structural Unit

TEST REPORT

APPARENT DENSITY OF RIGID CELLULAR PLASTICS

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P.O. BOX: 67 DUBAI, TEL : 00971-4-3369900, FAX : 00971-4-3366399
E-mail: labs@dm.gov.ae Website: <http://www.dm.gov.ae>

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Dubai Central Laboratory

Construction Materials Laboratory Section - Structural Unit

TEST REPORT

THERMAL TRANSMISSION PROPERTIES BY HEAT FLOW METER (THERMAL COND)

Report No:	100574657	Request No:	EMTX-2020-023816
Project No:	PS20-1019	Report Date:	01/04/2020
Project Name:	TESTING SERVICE FOR EMIRATES PREINSULATED PIPES INDUSTRIES LLC		
Consultant:	NA		
Contractor:	EMIRATES PREINSULATED PIPES INDUSTRIES LLC		
Location:	EPPI PO BOX:73830 ICAD 1,MUSAFFAH ABUDHABI,UAE		
Source:	NOT GIVEN		
Sample Description:	SPRAY APPLIED RIGID CELLULAR POLYURATHANE INSULATION		
Sampling Date/Time:	19/03/2020 12:00 AM	Lot Number:	EPPI-PUF-LBA-001
Receiving Date/Time:	22/03/2020 09:25 AM	Lot Size:	- NA
Sample Size:	6 pieces	Sender No:	050 8243215
Material/Mix type:		Laying Date/Production Date	14/03/2020
Nominal Size / Working Block Size L * T * H (mm) : 1000X500X50			

TEST RESULTS

PARAMETERS	RESULTS
SAMPLE TYPE	NG
SUPPORT / FACING	NIL
NOM. THICKNESS (mm) :	50
NOM. DENSITY (kg/m3) :	60
SPECIFICATION LIMIT	NG
TEST METHOD VARIATION	NIL
TYPE OF MATERIAL USED FOR CALIBRATION	STANDARD REFERANCE MATERIAL 1450C687
R VALUE @ 35deg C [(M2 K) / W]	0.7169
DATE OF CERTIFICATION	10-DEC-2010 00:00:00
SOURCE OF CERTIFICATION	National Institute of Standards & Technology [NIST] - U.S.A.
EXPIRY & CERTIFICATION TEST NUMBER	Refer NIST special publication 260-130
NOMINAL THICKNESS OF SPECIMEN (mm)	50.0
TEMPERATURE, RH & TIME AT WHICH SPECIMEN CONDITIONED	35 deg C, 60%RH & 48Hr.
DATE OF CALIBRATION	29-MAR-2020 00:00:00
MEAN TEMP.(SET) deg C	35
TEMPERATURE DIFFERENCE (deltaT) deg C	20
NO. OF HEAT FLUX TRANSDUCER USED	2
TEST ARRANGEMENT	HORIZONTAL

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Dubai Central Laboratory

Construction Materials Laboratory Section - Structural Unit

TEST REPORT

THERMAL TRANSMISSION PROPERTIES BY HEAT FLOW METER (THERMAL COND)

Report No:	100574657	Request No:	EMTX-2020-023816
PARAMETERS	RESULTS		
METERING (TEST) AREA	100mm X 100mm		
Uncertainty of measurement	REFER REMARKS		
TEST NO / SPECIMEN NO.	1/1		
MEASURED THICKNESS (L) (mm)	48.375		
MEASURED DENSITY (kg/m ³)	60.20		
MEAN TEMPERATURE ACHIEVED (deg C)	35.14		
HEAT FLUX (E) W/m ² .K.	1616		
THERMAL CONDUCTIVITY, W/(m K)	0.0260		
THERMAL CONDUCTIVITY, Btu-in /h.square ft.degF	0.1803		
THERMAL RESISTANCE, (Square m K) / W	1.8606		
THERMAL RESISTANCE, ft square / Btu	10.5668		
AVERAGE TEMPERATURE GRADIENT (K/m)	413.44		
WEIGHT DIFFERENCE (%)	-0.0190		
TEST DURATION (h:mm:ss)	03:14:18		

Sampled By:	EPPI-ANIL	Tested By:	NIMIAH
Samples Brought By:	EPPI - NISSAR	Testing Date:	24/03/2020 10:44 AM
Sampling Method:	NOT GIVEN	Sampling Report No:	
Test Method:	ASTM C518 -17	Test Method Variation:	NIL
Remarks:	THIS REPORT REPRESENTS THE SUBMITTED SAMPLES ONLY. ,Uncertainty of measurement for thermal conductivity 0.0010 W/m ² .K @ 95% confidence level, k factor 2 Abridged ASTM C 518 Test Report.		

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