

TOTO



Ultimate Design and Solution
Dedicated to your Installation

THE ART OF AIR - CONDITIONING
30.4



Smart Duct Liner

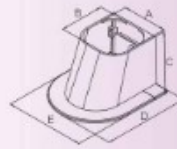
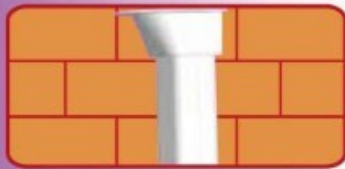
CÔNG TY CỔ PHẦN THƯƠNG MẠI VÀ XÂY DỰNG 30-4

Office: B.001 , Sadora, Khu đô thị Sala, TP. Thủ Đức

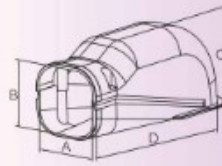
Workshop: H77, Đường số 5, P. Bình Hưng Hòa, Bình Tân, TP. Hồ Chí Minh

Hotline: 08.8888.3004- 093.883.0912

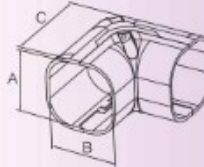
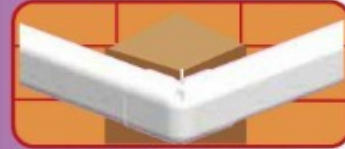
SLIM WALL CAP (ฝาครอบเพดาน)



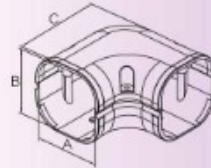
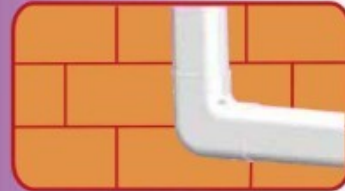
SLIM WALL (ฝาครอบ)



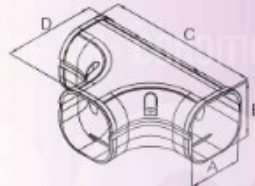
SLIM CORNER 90° (ช่องอเข้ามุม)



SLIM ELBOW (ช่องอโค้ง)



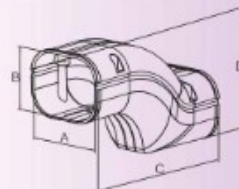
SLIM TYPE JOINT (ข้อแยกสามทาง)



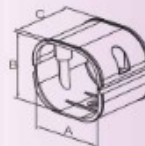
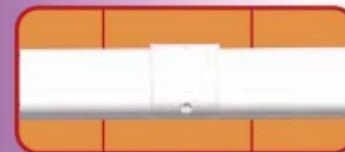
SLIM FLEXIBLE CORNER 90°+45° (ช่องอปรับได้)



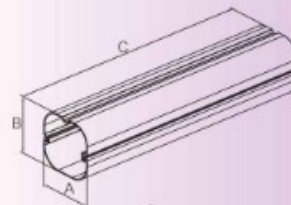
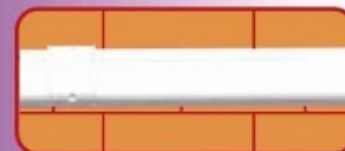
SLIM CROSS OVER (ข้อต่อข้ามคาน)



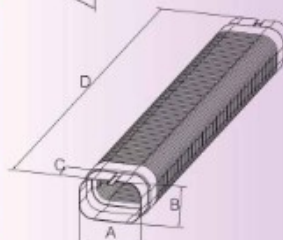
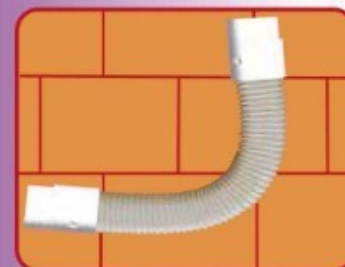
SLIM JOINT (ข้อต่อตรง)



SLIM DUCT (ท่อหุ้ม)



SLIM FLEXIBLE (ท่อยืด)



Dimension(mm.)

SLIM WALL CAP (ฝาครอบเพดาน)

Model	A	B	C	D	E
TA-65 S	59	60	65	104	113
TA-75 S	75	61	65	120	118
TA-100 S	100	68.5	65	137	148

SLIM WALL (ฝาครอบ)

Model	A	B	C	D
TW-65	60	60	77	184
TW-75	62	77	74.5	194
TW-100	102	69.5	93	190

SLIM CORNER 90° (ช่องอเข้ามุม)

Model	A	B	C
TC-65	60	60	98
TC-75	76	62	117
TC-100	100	68	128

SLIM ELBOW (ช่องอโค้ง)

Model	A	B	C
TK-65	60	60	100
TK-75	76	62	131.5
TK-100	100	68	171.5

SLIM TYPE JOINT (ข้อแยกสามทาง)

Model	A	B	C	D
TT-65 S	60	60	163	114
TT-75 S	76	62	179	130
TT-100 S	100	69	202	153

SLIM FLEXIBLE CORNER 90°+45° (ช่องอปรับได้)

Model	A	B	C
TN-65	60	59	135
TN-75	75	61	147
TN-100	99	66.5	179

SLIM CROSS OVER (ข้อต่อข้ามคาน)

Model	A	B	C	D
TIF-65 S	60	60	180	114
TIF-75 S	76	62	180	116
TIF-100 S	100	68	180	123

SLIM JOINT (ข้อต่อตรง)

Model	A	B	C
TJ-65	60	60	51.5
TJ-75	76	62	65
TJ-100	100	68	80

SLIM DUCT (ท่อหุ้ม)

Model	A	B	C
TD-65	60	57.5	2000
TD-75	74	64	2000
TD-100	100	68	2000

SLIM FLEXIBLE (ท่อยืด)

Model	A	B	C	D
TM-65	57	57	25	475
TM-75	74	63	25	482
TM-100	98	66	35	700

Test Report

Report No. : 61-C246-3255
Customer : SAMRUAY ENGINEERING CO., LTD.
48/5 MOO. 9, SOI NUALTHONG, SETTHAKIJ1 Rd., SUANLUANG, KRATHUMBAN,
SAMUTSAKORN 74110
Date of Issue : 09th October 2018
Date of Receipt : 26th September 2018
Date of Analysis : 03rd October - 04th October 2018
Total Page : 7 pages
Test Method : Heat Distortion Temperature (HDT)
Test Result : Please refer to next page.

Tested by :

Approved by :

Jinnaphat

Pimpun

(Miss. Jinnaphat Sommanat)

(Mrs. Pimpun Suknet)

Laboratory Officer

Laboratory Supervisor



Remarks :

1. The validity of the test results is strictly limited to the specific samples and the corresponding testing conditions and devices used: no further extrapolation or interpolation of the results is to be inferred.
2. Copyright in text of this result/test report with the NSTDA Characterization and Testing Service Center. Copies either in full, or of extracts, made in accordance with instruction may not be made without the permission of the NSTDA Characterization and Testing Service Center.
3. Making reference of NSTDA Characterization and Testing Service Center or the unit to the public made only in accordance with instructions given by the director of NSTDA Characterization and Testing Service Center.
4. NSTDA Characterization and Testing Service Center will not be responsible for any damage directly any reference to our written report or results such as usage of the experimental results for designing products and/or any other purposes.
5. Having any questions about this report, please contact us within 7 working days after the report was received.

Test Result

Report No. : 61-C246-3255
 Sample Name : TOTO DUCT
 Sample No. : 1800254, 1800255, 1800256
 1800257, 1800258
 Sample Identification : -
 Test Method : Heat Distortion Temperature (HDT)
 Test standard: -
 Weight Tested : 1,820 kPa (66 Psi)
 Heating Rate : 120°C/h.
 Preparation : The customer is preparing the tested samples.

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Test Mode: HDT ASTM
No.:Test Day      T.P. Name      Test Result °C
1 :10-04-2018 08:58  1800254_TOTO_1  65.9
2 :10-04-2018 08:58  1800255_TOTO_2  66.2
3 :10-04-2018 08:58  1800256_TOTO_3  64.3
4 :10-04-2018 08:58  1800257_TOTO_4  64.7
5 :10-04-2018 08:58  1800258_TOTO_5  65.7
Average:
65.4
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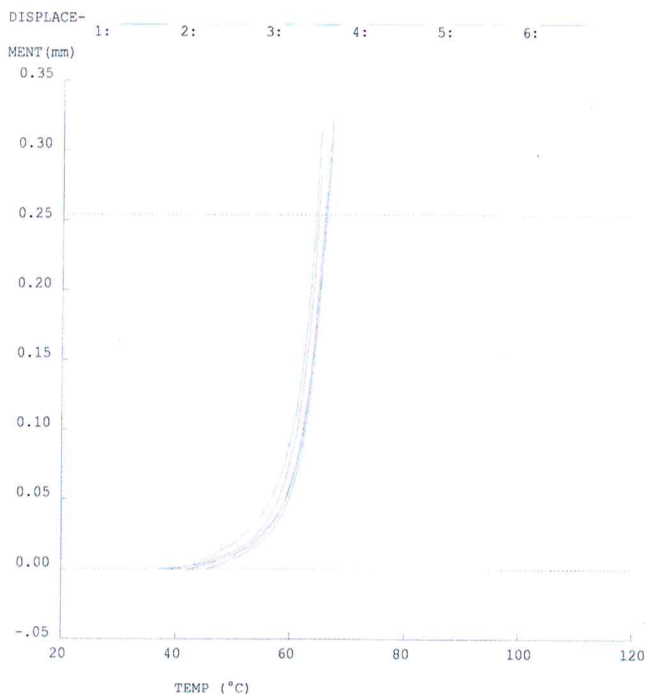


Figure 3 The HDT plots of TOTO DUCT (1, 2, 3, 4 and 5) on the temperature 35°C to 250°C of stress 1,820 kPa (66 Psi).

End of Report.....

MTEC 2731/61

Report of Analysis

Issued Date : 19 October 2018
Customer : SAMRUAY ENGINEERING CO.,LTD.
 48/5 MOO 9 , SOI NUALTHONG, SETTHAKIJ1 Rd.,
 T. SUANLUANG, KRATHUMBAN,
 SAMUTSAKORN 74110 THAILAND
 Tel: 0 2810-1260-7 Fax: 0 2810-1268
Serviced by : Flammability Testing Laboratory,Plastics Technology
 Laboratory,National Metal and materials Technology
 Center
Date received : 26 September 2018
Date analyzed : 17 October 2018
Samples : TOTO DUCT
Identification no. : No data from the customer
Instrument Test method : Flammability Testing Instrument Set
Test method : UL 94
 20mm Vertical Burning Test; V-0, V-1, or V-2
Conditions : Temperature 23°C, Relative Humidity 52%
Sample Preparation : None
Results :

Sample	UL 94 Classification
TOTO DUCT	V-0

20mm Vertical Burning Test: TOTO DUCT

Trial No.	Thickness (mm)	t ₁ (s)	t ₂ (s)	t ₃ (s)	Sample Burn Up to Holding Clamp	Cotton indicator ignited
1	1.16	0	0	2	No	No
2	1.15	0	0	2	No	No
3	1.16	2	0	1	No	No
4	1.14	0	0	1	No	No
5	1.14	0	0	2	No	No

Work performed by : *Sanya Kaewket*
(Mr.Sanya Kaewket)
Assistant Researcher 2

Approved by : *R. Pruthikul*
(Dr.Rittirong Pruthikul)
Researcher 2

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