

# Verification Testing Laboratory Analysis/Test Report

Date Received: 2014/10/22

Assignment No: 103A011-J312432

Date Issued: 2014/11/11

Applicant : Prowang Plastic Co., Ltd.

Address : No. 55, Fengtain Rd., Dapi Shiang,  
Yunlin County 63147, Taiwan.

Articles : PVC Corrugated Foam Sheet 、 Coated  
Steel Corrugated Sheet

Sampler : Prowang Plastic Co., Ltd.

- Notice: 1. There are 6 pages in this report, including the cover page; The Test Report has to be presented, if necessary, as complete copy, not part of it.
2. The contents of this report is for reference only, not for advertising, general public or any other commercial purposes.
3. The article(s) 、 name of the article(s) to be tested and Sampler(s) is supplied by the applicant ; PIDC is responsible for carrying out necessary analyzing procedures only.
4. The Analysis/Test Report is invalid, if it is modified or duplicated without PIDC's permission. PIDC does not guarantee the reported values in the Report when test is done by using other test pieces. The Test Report may not be used as evidence in a court of law.
5. “\*”Means the method has been certified by ISO/IEC 17025.

Authorized by \_\_\_\_\_

Wang Yau-Lin  
Group Leader

# Verification Testing Laboratory Analysis/Test Report

Application No : 103A011-J312432  
Date Tested : 2014/10/27~2014/11/07

Item(s)/ Method(s)	Result(s)	Note
1. The resistance of Chemical Reagents Ref. CNS 4447	PVC Corrugated Foam Sheet	
	Test solution/Time	Appearance Criticism
	10 % HCl/168Hrs	No apparent change in appearance of the sample is observed with the naked eyes after test.
	10 % NaOH/168Hrs	No apparent change in appearance of the sample is observed with the naked eyes after test.

Procedure: The 5 mm Langban was placed on support spacing 400 mm test machine platform and then use a certain speed to press down. When the compressive load force of 100 kgf. Stop the test and determine if there are any cracks in the sample or the appearance of corruption.

2. Flexural Test Ref. CNS 4458	PVC Corrugated Foam Sheet	
	#1	Appearance Criticism
	#2	No cracks and broken.
	#3	No cracks and broken.
	#4	No cracks and broken.
	#5	No cracks and broken.

Procedure: 5kg falling ball falling from the height of 1.2 meters and determine if there are any cracks in the sample .

3. Impact Test Ref. CNS 12093	PVC Corrugated Foam Sheet	
	#1	Appearance Criticism
	#2	No cracks
	#3	No cracks
	#4	No cracks
	#5	No cracks

# Verification Testing Laboratory Analysis/Test Report

Application No : 103A011-J312432  
Date Tested : 2014/10/27~2014/11/07

Item(s)/ Method(s)	Result(s)				Note
4. Test For Flammability Of Thin Sheet Materials Ref. CNS 7614	PVC Corrugated Foam Sheet	Carbonized length (Surface) (cm)	Afterflame (Surface) (sec)	Flaming Plus Glowing (Surface) (sec)	Specimen Maximum Thickness (Surface) (mm)
	#1	4.8	0	0	3.68
	#2	4.7	0	0	3.85
	#3	4.9	0	0	3.87

\*

Comment: Meet CNS 7614 Flammability Class 1

5. Coefficient of  
Effective Thermal  
Conductivity  
ISO 22007-2

PVC Corrugated Foam Sheet : 0.228 W/m.K

6. Whole Water  
Absorption Rate  
Ref. CNS 4458

PVC Corrugated Foam Sheet	Whole Water Absorption Rate (%)
#1	0.089
#2	0.089
#3	0.071
MEAN	0.083
SD	0.014

7. Moisture Content  
Ref. CNS 4458

PVC Corrugated Foam Sheet	Moisture Content (%)
#1	0.013
#2	0.013
#3	0.013
MEAN	0.013
SD	0.000

# Verification Testing Laboratory Analysis/Test Report

Application No : 103A011-J312432  
Date Tested : 2014/10/27~2014/11/07

Item(s)/ Method(s)	Result(s)	Note
-----------------------	-----------	------

8.Flexural Test Ref. CNS 3904	PVC Corrugated Foam Sheet	Flexural Load (kgf)
	#1	250
	#2	233
	#3	265
	#4	239
	#5	225
	MEAN	242
	SD	16

9.Coefficient of Effective Thermal Conductivity ISO 22007-2  
Coated Steel Corrugated Sheet :7.428 W/m.K

**REMARK :**

1. The resistance of Chemical Reagents
  - 1.1 Specimen Preparation Method: Provided By Customer
  - 1.2 Test Temperature:  $23 \pm 2$  °C
2. Flexural Test
  - 2.1 Specimen Preparation Method: Provided By Customer
  - 2.2 Test Speed : 10 mm/min
  - 2.3 Specimen Mean Dimension - Length: 500 mm
  - 2.4 Specimen Mean Dimension - Width: 301 mm
  - 2.5 Specimen Mean Dimension - Thickness: 5.04 mm
  - 2.6 Support Span: 400 mm
  - 2.7 Take the result to three significant figures.
3. Impact Test
  - 4.1 Specimen Preparation Method: Provided By Customer
  - 4.2 Conditioning of Specimen :  $23 \pm 2$  °C ,  $50 \pm 5$  % Relative Humidity, over 40 hrs
  - 4.3 Conditioning of Experimental :  $23 \pm 2$  °C ,  $50 \pm 5$  % Relative Humidity
  - 4.4 Falling weight: 5 kg
  - 4.5 Falling height: 1.2 m
4. Test For Flammability Of Thin Sheet Materials
  - 4.1 Specimen Preparation Method: Cutting Molding
  - 4.2 The Method of Current Edition : 1994
  - 4.3 Conditioning-Temperature: 50 °C
  - 4.4 Conditioning-Time: 48 hrs

# Verification Testing Laboratory

## Analysis/Test Report

Application No : 103A011-J312432  
Date Tested : 2014/10/27~2014/11/07

- 4.5 Conditioning-Desiccator: 24 hrs
- 4.6 Heating Time: 30 secs
- 4.7 Heating Time Select Method: Appointed By Customer
- 4.8 Specimen Mean Length: 30 cm
- 4.9 Specimen Mean Width: 20 cm
- 5. Coefficient of Effective Thermal Conductivity
  - 5.1 Specimen Preparation Method: Provided By Customer
  - 5.2 Test temperature:  $23 \pm 2$  °C
  - 5.3 Specimen Mean Thickness: 7.35 mm
  - 5.4 Conditioning of Specimen :  $23 \pm 2$  °C,  $50 \pm 10$  % Relative Humidity, over 48 hrs
  - 5.5 Conditioning of Experimental :  $23 \pm 2$  °C,  $50 \pm 5$  % Relative Humidity
  - 5.6 Test apparatus: Hot Disk
  - 5.7 Test Time: 40 secs
  - 5.8 Test Watts: 0.5 W
- 6. Whole Water Absorption Rate
  - 6.1 Molding Type : Provided by the Customer
  - 6.2 Pretreatment - temperature :  $40 \pm 2$  °C
  - 6.3 Pretreatment - time : More than 24 hours to constant weight
  - 6.4 Immersion Time : 2 hrs
  - 6.5 Immersion Temperature :  $20 \pm 3$  °C
  - 6.6 Specimen Mean Length : 5.04 mm
  - 6.7 Take the result to three significant figures.
- 7. Moisture Content
  - 7.1 Specimen Preparation Method: Provided By Customer
  - 7.2 Conditioning - temperature :  $40 \pm 2$  °C
  - 7.3 Conditioning - time : More than 24 hours to constant weight
  - 7.4 Specimen Mean Dimension - Thickness : 5.06 mm
  - 7.5 Take the result to three significant figures.
- 8. Flexural Test
  - 8.1 Specimen Preparation Method: Cutting Molding
  - 8.2 Conditioning of Specimen :  $23 \pm 2$  °C,  $50 \pm 5$  % Relative Humidity, over 40 hrs
  - 8.3 Test Speed : 10 mm/min
  - 8.4 Specimen Mean Length: 300 mm
  - 8.5 Specimen Mean Width: 252 mm
  - 8.6 Specimen Mean Thickness: 4.56 mm
  - 8.7 Support Span: 250 mm
  - 8.8 Take the result to three significant figures.
- 9. Coefficient of Effective Thermal Conductivity
  - 9.1 Specimen Preparation Method: Provided By Customer
  - 9.2 Test temperature:  $23 \pm 2$  °C
  - 9.3 Specimen Mean Thickness: 5.55 mm

# Verification Testing Laboratory Analysis/Test Report

Application No : 103A011-J312432  
Date Tested : 2014/10/27~2014/11/07

9.4 Conditioning of Specimen :  $23 \pm 2$  °C,  $50 \pm 10$  % Relative Humidity, over 48 hrs

9.5 Conditioning of Experimental :  $23 \pm 2$  °C,  $50 \pm 5$  % Relative Humidity

9.6 Test apparatus:Hot Disk

9.7 Test Time:1 sec

9.8 Test Watts:0.8 W

<Blank Below>