



Test Report

No. AJD201400192

Date: JAN.23, 2014

Page 1 of 5

ARGOS PACKAGING & PROTECTION
AARTSDIJKWEG 35
ZIPCODE: 2676 LE
CITY: MAASDIJK

The following sample(s) was / were submitted and identified on behalf of the client as:

Sample Description: 300MICRON

SGS Ref No.: 201312000095-1

Country: THE NETHERLANDS

Test Requested:

To determine the flammability (building materials class B1) in accordance with DIN 4102-1 (May 1998) Fire behaviour of building materials and elements Part 1: Classification of building materials, Requirements and testing

Test Results: -- See attached sheet --

Conclusion:

The tested sample **meets** the low flammability requirements of class B1 of building materials under DIN 4102-1 (May 1998).

Test Period:

Sample Receiving Date : JAN.09, 2014

Test Performing Date : JAN.09, 2014 TO JAN.22, 2014

Signed for and on behalf of
SGS-CSTC Co., Ltd.

Allen

Allen Zou
Technical Supervisor

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/terms_and_conditions.htm and for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, jurisdiction and jurisdiction issues defined therein. Any holder of this document is advised that information contained herein reflects the Company's findings at the time of its investigation only and is within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. A unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise indicated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

SGS-TEST Standards Technical Services Co., Ltd
Anli Branch, China, SGS-TEST Standards Laboratory

No. 301, Yangguang Avenue, District 2, Sunlight Industrial Zone, Anji County, Zhejiang Province, China 313300 t (86-572) 5018825 f (86-572) 5018829 www.cn.sgs.com
中国·浙江·安吉县阳光工业园二区阳光大道301号 邮编: 313300 t (86-572) 5018825 f (86-572) 5018829 e sas.china@sas.com

Member of the SGS Group (SGS SA)

Test Report

No. AJD201400192

Date: JAN.23, 2014

Page 2 of 5

I. Test conducted

This test was conducted as per DIN 4102-15:1990 DIN 4102-16:1998 and DIN 4102-1:1998 Clause 6.2.
Classification in according to DIN 4102-1 (May 1998) Clause 6.1-Class B1 materials

II. Sample details

Name	300MICRON
Density / Color	280g/m ²
Size of sample	1000mmx190mm, 190mmx90mm

Conditioning

Prior to testing, the sample was conditioned at least 14 days to constant mass at a temperature of 23 ± 2 °C,
and a relative humidity of 50 ± 6 %.

III. Test results

1) "Brandschacht" Test according to DIN 4102-15 &16

Exposed surface: The Front Face

Results of "Brandschacht" Test (part 1)					
Line No.	Unit	Test assemblies No.			
		A	B	C	D
1	Specimen fixings according to DIN 4102 part 15, table	-	1		
2	Max. flame height above lower sample edge;	cm	40		
3	Time ¹⁾	min:s	0:12		
4	<u>Melting/burning through</u> Time ¹⁾	min:s	0:06		
5	<u>Back of specimen</u> Flaming/glowing, Time ¹⁾	min:s	0:06		
6	Discolouring, Time ¹⁾	min:s	0:05		
7	<u>Burning droplets</u> Begin ¹⁾	min:s	0:07		
8	<u>Amount</u> Specimen material falling off in separate droplets				
9	Specimen material falling off continuously		✓		

To be continued...

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/terms_and_conditions.htm and for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its issuance and only within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated, the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Test Report

No. AJD201400192

Date: JAN.23, 2014

Page 3 of 5

Results of "Brandschacht" Test (part 2)					
Line No.	Unit	Test assemblies No.			
		A	B	C	D
10	<u>Burning parts</u> Begin 1)	min:s	NO		
11	Parts of sample falling off separately	/			
12	Parts of sample falling off continuously	/			
13	Duration of continued combustion on mesh base (max.)	min:s	NO		
14	<u>Burner flame impairment by dripping/falling material</u> Time ¹⁾	min:s	NO		
15	Premature ending of test	/			
16	End of burning at specimen ¹⁾	min:s	/		
17	Time when test terminated (if applicable) ¹⁾	min:s	/		
18	<u>Burning after end of test</u> Duration	min:s	NO		
19	Number of specimens	/			
20	Front of specimen	/			
21	Back of specimen	/			
22	Height of flame	cm	/		
23	<u>Glowing after end of test</u> Duration	min:s	NO		
24	Number of specimens	/			
25	Front of specimen	/			
26	Back of specimen	/			
27	Top half of specimen	/			
28	Bottom half of specimen	/			

To be continued...

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/terms_and_conditions.htm and for electronic format documents subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, jurisdiction and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its issuance only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Results of "Brandschacht" Test (part 3)										
Line No.		Unit	Test assemblies No.							
			A		B		C		D	
28	<u>Residual length</u>	cm								
	Single results		63	62						
			61	62						
29	Average of the single results	cm	62							
30	<u>Smoke temperature</u>	°C								
	Max. of average		137							
31	Time ¹⁾	min:s	10:00							

Note: ¹⁾ time from start of testing

2) Normal Flammability Test according to DIN 4102-1 Clause 6.2

Flame application: [☒] bottom edge ignition, [☐] surface ignition

Specimen No.	1	2	3	4	5
Reaching the measuring mark within 20 seconds	No	No	No	No	No
Self extinguishing of the flame (s)	15	15	15	15	15
Max. flame height (cm)	5	6	4	4	5
End of afterflaming (s)	15	15	15	15	15
End of afterglowing (s)	15	15	15	15	15
Molten dripping	No	No	No	No	No
Smoke developments (visual impression)	Slight				

All timings are from start of testing

To be continued...

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/terms_and_conditions.htm and for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, jurisdiction and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its issuance only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all the rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated, the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Criteria for classification for Class B1 (DIN 4102-1 Clause 6.1.2)

All materials, except flooring, may be classed as B1 materials if they met,

a) Pass DIN 4102-16 "brandschacht" test if

- 1) The mean value for the residual length of each specimen is at least 15 cm, and no individual values are lower than 0 cm;
- 2) The mean effluent temperature does not exceed 200 °C in any test;
- 3) The requirement for the residual length of each specimen is met even where there is afterflame, afterglow, or smouldering.

b) Pass DIN 4102-1 Clause 6.2.3 Ignitability Test if,

For each specimen, flaming doesn't reach the gage mark within 20s after flame application.

STATEMENTS:

This test report does not replace any mandatory certification of the product that may be required.

The test results relate to the behaviour of the test specimens of a product under the particular conditions of the test; they are not intended to be the sole criterion for assessing the potential fire and smoke hazard of the product in use.

Photo Appendix:



End of Report

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at http://www.sgs.com/terms_and_conditions.htm and for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/terms_e-document.htm. Attention is drawn to the limitation of liability, jurisdiction and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated, the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.