

# TEST REPORT

Reference No. : TRHZ1210335

Date : Oct. 24, 2012

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Client : HANGZHOU SOYANG TECHNOLOGIES CO., LTD  
Address : WEST 19TH FLOOR, YONGTONG INFORMATION PLAZA, NO.141, HUANCHENG BEI  
ROAD, HANGZHOU CITY, 310004, ZHEJIANG, CHINA

The following merchandise was (were) submitted and identified by the client as:

Name of Product : TARPAULIN/PLASTIC BANNER  
Test Model : B01-440  
Model May Cover : /  
Main Material : PVC  
Sample Received : Oct. 09, 2012  
Test Period : Oct. 09, 2012 – Oct. 19, 2012  
Test Request : According to customer requirements, to do DIN 4102-1 B1 level test of the  
submitted sample.  
Test Method : DIN 4102-1 B1-1998  
Conclusion : **Pass.**

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Issued by:



**TÜV NORD (Hang Zhou)**  
**Green Product Service Centre Manager**



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## 1、Description of test material in condition as delivered

According to the manufacturer polyester fabric with a permanent flame retardant treatment with a printable surface to use in door as advertising space or decoration.

## 2、Preparation of samples

The following samples were tailored and kept in a climate chamber acc. DIN 50014-23/50-2 until they reached constant weight:

- 4 samples 1000mm weft×190mm warp,(test specimen A )
- 4 samples 190mm weft×1000mm warp,(test specimen B )
- 5 samples 190mm weft×90mm warp, 5 samples 90mm weft×190mm warp
- 1 sample 230mm weft×90mm warp, 1 sample 90mm weft×230mm warp

## 3、Arrangement of samples

The tests have been performed acc .DIN 4102-1, chapter 6.2.4.2(building materials class B2) and DIN 4102-1 and -16(building materials class B1)  
Arrangement of all samples: freely suspended

## 4、Test Result :

### Test Result Class B1

Line no.	Measurement	Test result				Requirements
		A	B	C	D	
1	Maximal flame height above bottom edge....cm	30	30	-	-	
2	Time 1).....min	1	1			
3	Burning/melting through Time1).....min	1	1	-	-	
4	Back side of the specimens: Flames/glowing Time1).....min:s	/	/	-	-	
5	Discolouring Time1).....min:s	/	/			
6	Failing of burning droplets Begin 1).....min:s	Yes 0:10	Yes 0:10	-	-	
7	Extend: Sporadic falling of Burning droplets	Yes	Yes			
8	Continuous falling of Burning droplets	No	No			



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9	Falling of burning parts Begin 1).....min:s	No	No	-	-	
10	Extend: Sporadic falling of Burning parts					
11	Continuous falling of Burning parts					
12	After flame time at the bottom of the sieve (max) min:s	0.01	0.01	-	-	
13	Impairment of the burner flames by dropping or falling material Time 1).....min:s	0.35	0.30	-	-	
14	Premature end of test Final occurrence of burning at the specimen 1).....min:s	No	No	-	-	
15	Time of wventually end of Test 1).....min:s					
16	After flame after end of test Time .....;min:s	No	No	-	-	
17	Number of specimen					
18	Front side of specimen					
19	Back side of specimen					
20	Flame length.....cm					
21	After glow after end Of test Time.....min:s	No	No	-	-	
22	Number of specimen					
23	Place of appearance: Lower half of specimen					
24	Upper Halt of specimen					
25	Front side of specimen					
26	Back side of specimen					
27	Smoke density ≤400%min	0.15	2.0			
28	≥400%min(very strong					

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	smoke density)					
29	Residual length Individual value.....cm	68	69	-	-	>0
		65	70			
		65	73			
30	Average value.....cm	65	69			
		66	70			≥15
31	Flue gas temperature Maximum of average value.. °C	112	111	--	-	≤200
32	Time 1).....min:s	9.58	9.58			
33	Remarks: There were no additional tests proceeded, because of residual length of more then 45cm(line32)					

Test Specimen A : Warp(machine direction)

Test Specimen B : Weft(cross direction machine)

\*\*\*\*\* To be continued \*\*\*\*\*

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## Test Result Class B2 (Brennkasten)

	Warp direction						Weft direction						dim	Requirements
Sample	1	2	3	4	5	6	1	2	3	4	5	6	-	-
Ignition of the sample	2	2	2	2	4	4	2	2	2	2	4	4	S	-
Maximum flame height	5	5	6	4	7	6	4	4	5	4	8	7	cm	-
Time of the maximum	1	1	1	9	1	1	8	1	1	9	1	1		
	0	1	1		1	0		0	0		4	2		
Flame tip reached the 150mm test mark	/	/	/	/	/	/	/	/	/	/	/	/	s	≥20
Flame has extinguished before reaching the test mark	1	1	1	1	1	1	9	1	1	1	2	1		
	1	2	3	0	3	2		1	1	0	1	8		
Lgnition of filter paper	/	/	/	/	/	/	/	/	/	/	/	/		1)
Smoke density	Moderate						Moderate							-
Afterburning time	/	/	/	/	/	/	/	/	/	/	/	/	s	-
View of the samples after the (20 seconds after exposure the flame): -warp and weft direction:burned length:app.6cm; burned width:app.2.5cm;above App.2cm covered with soot														

**Samples 1-4:surface expoure**

**Samples 5+6:edge exposure**

1):not ignition within 20 seconds beginning of testing procedure

/:Not occurred

Dim:dimension

Indication of time:from the beginning of testing procedure

\*\*\*\*\* To be continued \*\*\*\*\*

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## SAMPLE PHOTO



\*\*\*\*\* END OF REPORT \*\*\*\*\*