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Research & Development

Test Report
Verification of behavior in fire according to DIN 4102-1

Nr. 01.52. 4235 .06

Customer :	**Neschen AG** **Hans- Neschen- Straße 1** **31675 Bückeburg**
Date :	14.06.2006
Subject order :	Hardly inflammable testing according to DIN 4102-1 (Building material class B1)
Test material :	Fabric for decoration
	Trade name : Solvoprint PVC backlit premium
Valid until :	June , 2011

If the material is not used as building material according to MBO §2, section9, No.2a standard construction supervising test report is not necessary.

This test report is not valid, when the material is used as building material according to the regional building regulations.

This test report consists of 5 pages.

This verification only may be transmitted in complete and unchanged version.
Extracts or modifications need our acceptance.

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TÜV CERT DIN EN ISO 9001

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01 . 52 . 4235 . 06

Test material : **PVC coated Polyester**

Colour : white

Test thickness : 1100 dtex

Average surface area mass : ~ 500 g/m²

Trade name : Solvoprint PVC backlit premium

Preparation of the test material :

The test material was supplied by the custumer and prepared in the testing labratory as samples.

The test samples were then stored in standard climate 23/50 until weight stability.

Test execution:

The testing in the test- chamber (building material class B2) was executed in a test-chamber according to DIN 4102-1, Section 6.2.4.2. - testing material hanging freely -.

The testing in the fire-tunnel (building material class B1) was execued according to DIN 4102-1 and section 16.
- testing material hanging freely-.

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Results of B 2-Test to DIN 4102-1

Test-Nr.	01.52.4235.06	Date: 2006-06-14

Applicant	Neschen AG, Windmühlenstraße 6, D-31675 Bückeburg
Material tested	PVC coated fabric
Material name	Solvoprint PVC backlit premium

Other data :

Climated storage	yes

Test Results

a) Edge ignition according to paragraph 6.2.4.2 (Ignition of frontside)

Test	Flash-point of testmaterial	Max. high of flames during test (20 sec)	Point of time	Mark reached after	Extinguish of material-flames, point of time	Duration of glowing/smoldering	Specifications passed	Burning components drop down	
								Time of first drops	Duration of dropping
	sec	cm	sec	sec	min; sec	sec		sec	sec
1	< 1	13	15	-	0:16	-	yes	-	-
2	< 1	10	12	-	0:14	-	yes	-	-
3	< 1	12	13	-	0:15	-	yes	-	-
4	< 1	13	14	-	0:16	-	yes	-	-
5	< 1	13	15	-	0:17	-	yes	-	-

Remarks: Flames: sooting strong Smoke density: strong

b) Edge ignition according to paragraph 6.2.4.2 (---------)

Test	Flash-point of testmaterial	Max. high of flames during test (20 sec)	Point of time	Mark reached after	Extinguish of material-flames, point of time	Duration of glowing/smoldering	Specifications passed	Burning components drop down	
								Time of first drops	Duration of dropping
	sec	cm	sec	sec	min; sec	sec		sec	sec
1									
2									
3									
4									
5									

Remarks: Flames: Smoke density:

The test material passed the requirements to DIN 4102-B2.

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Trial results of the fire-tunnel tests according to DIN 4102-1

Test-Nr.	01.52.4235a.06	Date: 14th June 2006

Applicant	Neschen AG, Hans Neschen Str. 1, D-31675 Bückeburg
Material tested	PVC coated Polyester
Material name	Solvoprint PVC backlit premium

Other data :

Climatised storage	yes
Preliminary end of test	no

Test units		A	B	C	D
First flames *)	min, sec	0:06			
Max. flame height	cm	60			
Point of time *)	min, sec	0:35			
Melting point *)	min, sec	0:07			
Flames on reverse side of test unit *)	min, sec	-			
Influence on burner flame *)	min, sec	-			
Burning components drip down*)	min, sec	0:19			
Extent		moderate			
Continuation of burning on the perforated bottom **)	min, sec	0:25			
Max. smoke temperature	°C	117			
Appeared after *)	min, sec	10:00			
Smoke temperature after 10 min.	°C	117			
Smoke density		strong			
Glowing particles after test end **)	min, sec	-			
Remaining lengths Test 1	cm	48			
Test 2	cm	50			
Test 3	cm	52			
Test 4	cm	45			
Average value of single test	cm	49			

Remarks : 3:15 Decrease of the flame height to 40 cm.

The test materiall is classified as „ burning dripping down „.

*) Point of time referred to the test beginning
**) Time period

Art der Anforderung	Anforderungen A 1	A 2	B 1
Brandschacht - Restlänge a) Mittelwert jedes Schachtes b) Einzelwerte - Rauchgastemperatur - Entflammung auf der Probenrückseite - Brandparallelerscheinungen weitere Nachweise	 > 35 cm > 20 cm < 125 °C nein kein Anlass zu Bedenken 750°C Ofen, Rauchdichte, Toxizität, ggf. Heizwert	 > 35 cm > 20 cm < 125 °C nein B2-Brennkasten	 > 15 cm > 0 cm < 200 °C zulässig

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Result :

The tested material fulfills the requirements of building materials to class B2, and fire – tunnel test section 6.1.2.2 to DIN 4102-1. (test-results page 3 ; 4.)

The test material fulfills the requirements to hardly inflammable building materials (building material class B1) to DIN 4102-1, freely hanging in space > 40 mm to other surfaces . It is classified as „ drip down burning „.

Final observation:

The determined test-results are exclusively valid for the test material as described on page 2.
In connection with other products, the burning behavior may change.

Osnabrück, 14.06.2006

ppa. Dr. Kanig

i.A. Maßmann

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