

Test report no. 053604.1 – VSch
(English Version of the test report no. 053421.1-VSch)

orderer: Tapetenfabrik
Gebr. Rasch GmbH & Co. KG
Raschplatz 1
D-49565 Bramsche

order from: 08.11.2005 – Rita Hackmann

order: Test report of the fire behaviour according to DIN 4102-1: 1998-05,
fire class B1, of wallpaper „Heavy Vinyl“ item number 48266B

note: 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
hazard of the product in use.

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The test report has to be published only unabridged. Publishing in abstracts must be allowed by
the testing institute. The test results refer only on the tested material.

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Die Akkreditierung gilt für die in der
Urkunde aufgeführten Prüfverfahren



Niedersachsen



Notifizierte Stelle
0764

1. Test material

1.1 Sampling and delivery

date: - / by orderer
delivery: 10.11.2005
number of samples: 1 roll
dimensions: 10,050 mm x 530 mm

1.2 Informations about the product

name: „Heavy Vinyl“
item number: 48266B
thickness: 0.7 mm
weight per unit area: 390 g/m²

2. Fire tests

2.1 Review

All fire tests were carried out according to DIN 4102-1:1998-05. The wallpaper was pasted on plasterboards with a wallpaper paste.

character and location of tests

tests	amount of tests	lab
Single-flame source test	10	MPA BAU Hannover
Brandschacht-test	3	



2.2 Brandschacht-test

results of the Brandschacht-test

test		A	B	C
max. vertical flame spread time after beginning	cm min:s	100 01:27	100 01:15	100 01:19
melting and burning through time after beginning	min:s	—	—	—
flames on the reverse side of samples time after beginning	min:s	—	—	—
flaming droplets/particles		—	—	—
residual length				
single values	cm	15	17	17
	cm	17	18	19
	cm	22	19	22
	cm	17	19	16
mean value	cm	18	18	19
max. smoke temperature time after beginning	°C min:s	159 01:21	159 01:15	155 01:23
subsequent fire	min:s	—	—	—
smoke intensity				
max. opacity of the smoke	%	58	53	55
integral value I	min·%	87	89	99

The development of smoke temperature is shown in fig. 1, the appearance of samples after burning in fig. 3 – 5.

The integral value $I = \int_{0 \text{ min}}^{10 \text{ min}} S \cdot dt$ was calculated from the curve in fig. 2



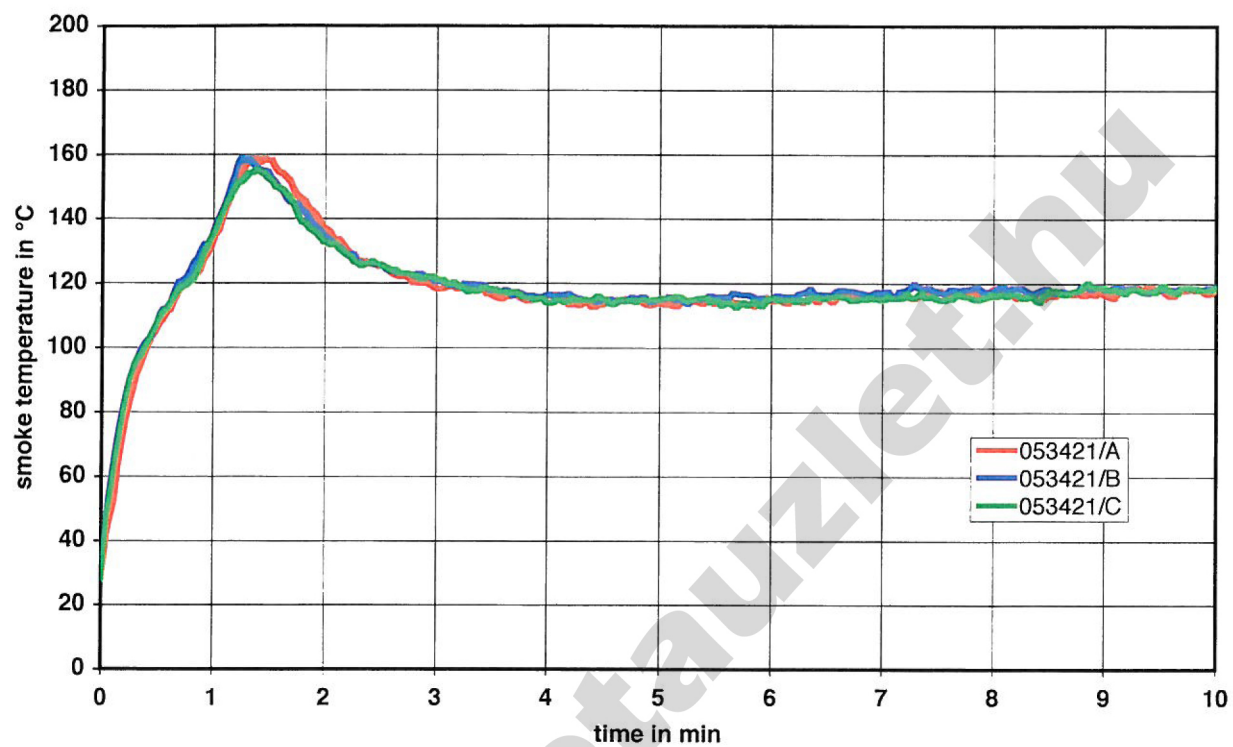


fig 1: smoke temperature

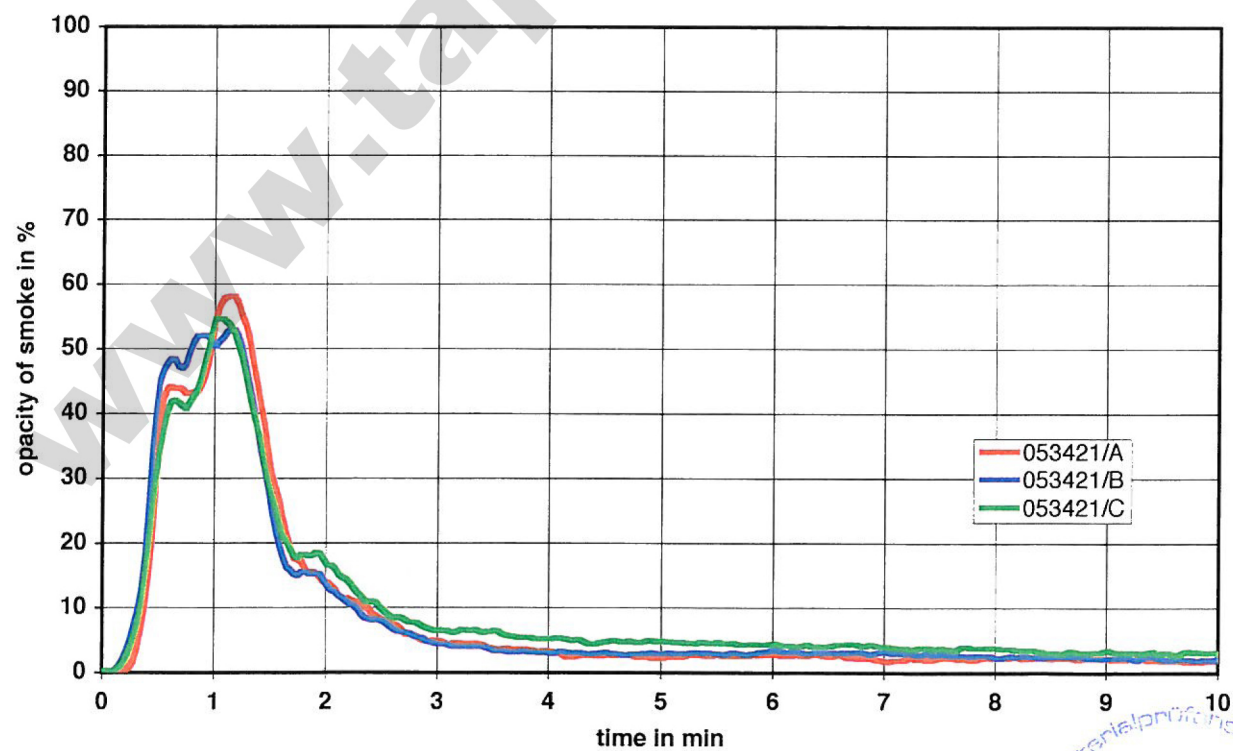
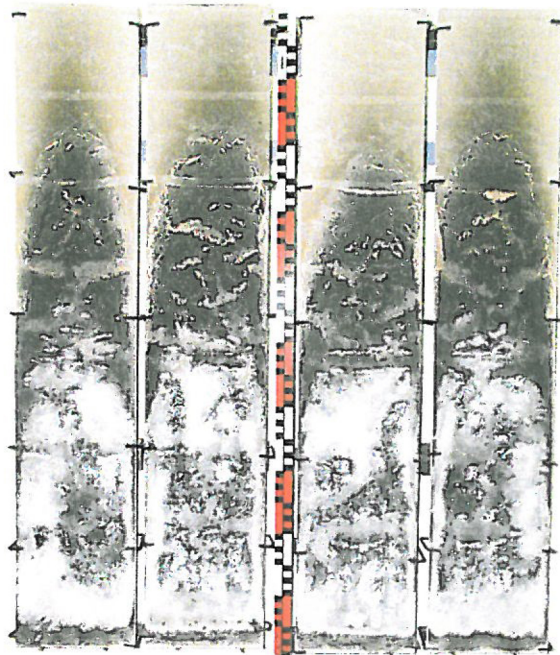
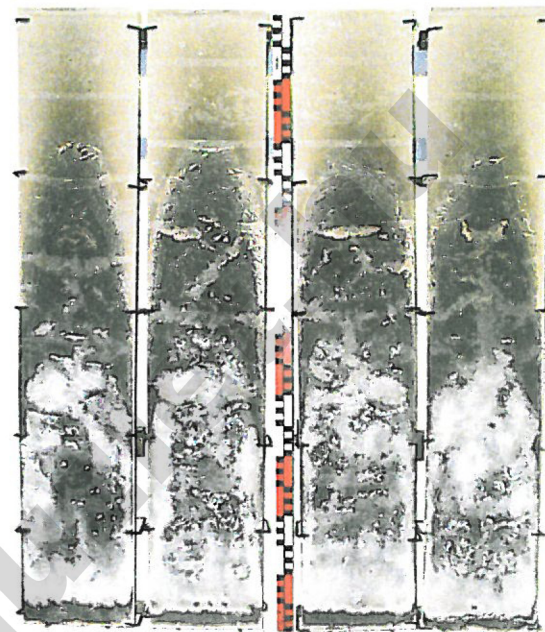


fig 2: opacity of smoke



053604_A

fig. 3: Appearance of specimen A
after 10-minutes burning



053604_B

fig. 4: Appearance of specimen B
after 10-minutes burning



053604_C

fig. 5: Appearance of specimen C
after 10-minutes burning

2.3 Single-flame source test

The tests were carried out as edge flame attacks according to DIN 4102-1: 1998-05 clause 6.2.5.2 and as surface flame attacks according to DIN 4102-1: 1998-05 clause 6.2.5.3.

flame application time: 15 s

observation time: 20 s

number of tests: 10

position of flame application		edge					surface				
specimen no..		1	2	3	4	5	6	7	8	9	10
ignition occurs after	s	0,1	0,2	0,1	0,2	0,2	0,5	0,5	0,5	0,5	0,6
duration of flames	s	15,4	15,4	15,5	15,2	15,4	14,9	15,2	15,1	15,0	15,0
max. vertical flame spread	mm	40	40	30	30	40	50	50	50	50	50
smoke production		moderate									
flaming droplets/particles		no ignition of the filter paper									

Requirement of class B2: max. vertical flame spread < 150 mm



3. summary

summary of test results

name		„Heavy Vinyl“
thickness	mm	0.7
weight per unit area	g/m ²	390
Brandschacht-test		
max. vertical flame spread	cm	100
residual length	cm	18
max. smoke temperature	°C	159
flaming droplets/particles		—
max. opacity of smoke	%	58
integral value	min-%	87
single-flame source test		
max. flame spread	mm	50
flaming droplets/particles		—

4. Classification

The product „Heavy Vinyl“ with a weight per unit area of 390 g/m² fulfils the requirements of DIN 4102-1 - B1 and is thus classified in relation to its reaction to fire.

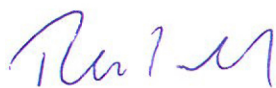
During the tests there were no flaming droplets/particles according to DIN 4102-1.

6. Restrictions

This test report is valid until 30.11.2010.

Hannover, 28.11.2005

Head of fire laboratory



(ORR Dipl.-Ing. Restorff)



Technician



(V. Schmidt)