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Offenbach, 2009-01-21

Your ref.
Jörg Kühne

Your letter
2009-01-12

Our ref. - please indicate
608700-9021-0001/113287-e
FG41/hz

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Translation: In any case the German version shall prevail

Prüfbericht zur Information des Auftraggebers *Test Report for the Information of the applicant*

Dieser Prüfbericht enthält das Ergebnis einer einmaligen Untersuchung an dem zur Prüfung vorgelegten Erzeugnis. Ein Muster dieses Erzeugnisses wurde geprüft, um die Übereinstimmung mit den nachfolgend aufgeführten Normen bzw. Teilen von Normen festzustellen.

This test report contains the result of a single investigation carried out on the product submitted. A sample of this product was tested to found the accordance with the thereafter listed standards resp. parts of standards.

Der Prüfbericht berechtigt Sie nicht zur Benutzung eines Prüfzeichens des VDE und des Zeichens "GS=geprüfte Sicherheit" und berücksichtigt ausschließlich die Anforderungen der unten genannten Regelwerke.

The test report does not entitle you to use a VDE Certification mark and the „GS = geprüfte Sicherheit (tested safety)“ and considers solely the requirements of the policies mentioned below.

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Date of receipt of test sample: 2009-01-15
Date of performance of tests: 2009-01-15 up to 2009-01-20
Testing laboratory: VDE Testing and Certification Institute
Section FG 41
Merianstraße 28
63069 Offenbach

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1 Description of test sample

The applicant supplied for the test about 18 m coaxial cable

Type: SPUMA_400-FR
Article number: 84040210



2 Test procedure

By request of the applicant the following tests were conducted:

- Test for vertical flame propagation for a single insulated wire or cable –
Procedures - 1 kW pre-mixed flame
according to DIN EN 60332-1-2 (VDE 0482 332-1-2): 2005-06
- Measurement of smoke density of cables burning under defined conditions;
according to DIN EN 61034-2 (VDE 0482-1034-2):2006-03.

3 Marking of the sample

HUBER + SUHNER SPUMA 400-FR 50 Ohm 529123

Printing on the sheath

4 Construction

- Conductor: solid aluminium conductor, copper plated
outer wire diameter 2,8 mm
- Insulation: plastic compound, white
outer diameter 7,0 mm
- Outer conductor: one layer plastics coated metal foil, overlapping
thickness 0,09 mm

compact copper wire braid, metal coated
single wire diameter 0,154 mm
- Sheath: plastic compound, black
outer diameter 10,2 mm



5 Test for vertical flame propagation for a single insulated wire according to DIN EN 60332-1-2 (VDE 0482 332-1-2) 1 kW pre-mixed flame

5.1 Conditioning

The test was done on 3 samples of 600 mm length.

Before the test the samples were conditioned > 16 h at a relative humidity of (50±20) % and a temperature of (23±5) °C.

5.2 Test results

burning time 60 s

	1st sample	2nd sample	3rd sample
begin of charring*			
top (mm)	417	412	416
down (mm)	497	493	498
burning time after end of flame exposure (s)	3	2	3

* measured to the lower edge of the top support

5.3 Required acceptance conditions

The cables pass the test if the distance between the lower edge of the top support and the onset of the charring is greater than 50 mm. A failure shall be recorded if burning extends downwards to a point greater than 540 mm from the lower edge of the top support.

5.4 Evaluation

The test requirements have been met.

6. Measurement of smoke density DIN EN 61034-2 (VDE 0482-1034-2)

6.1 Conditioning

Before the test the samples were straightened and conditioned > 16 h at (23±5) °C.

6.2 Test parameters

- samples as delivered
- number of samples: $N_1 = 4$ samples
- temperature in test chamber: 22 °C (before the test)

6.3 Test result

After the fire source has extinguished and within the test duration of 40 minutes there was a minimum value of the

light transmittance of 92 %.

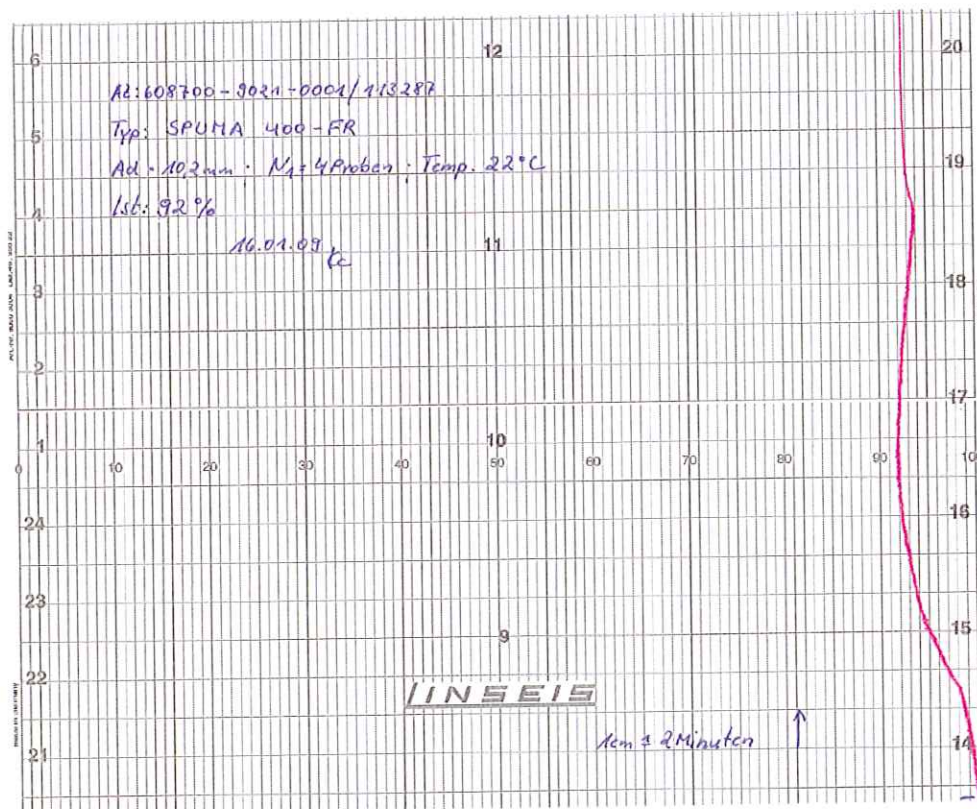
6.4 Recommended performance requirements

The requirements for particular types of classes of cables shall be mainly given in the relevant cable standards. If they are missing completely it is recommended to adopt a value of 60 % for the light transmittance as a minimum value for all cables tested according to this standard.

The test requirement has been met.



6.5 Diagram of the light transmittance



VDE Prüf- und Zertifizierungsinstitut GmbH
 VDE Testing and Certification Institute
 Section FG41

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