

VDE Prüf- und Zertifizierungsinstitut GmbH • Merianstraße 28 • 63069 Offenbach

gabo Systemtechnik GmbH
Am Schaidweg 7
Herrn Martin Ziermann
94559 Niederwinkling



Offenbach, 2015-03-12

Your ref.
Martin Ziermann

Your letter
2013-11-29

Our ref. - please indicate
5002974-9021-0001/192400-3a-en
CC4/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. Abschnitten von Normen festzustellen. Die Prüfung wurde durchgeführt vom 2014-01-17 bis 2014-01-20.

This test report contains the result of a singular investigation carried out on the product submitted. A sample of this product was tested to found the accordance with the thereafter listed standards or clauses of standards resp. The testing was carried out from 2014-01-17 to 2014-01-20.

Der Prüfbericht berechtigt Sie nicht zur Benutzung eines Zertifizierungszeichens des VDE und berücksichtigt ausschließlich die Anforderungen der unten genannten Regelwerke.

The test report does not entitle for the use of a VDE Certification Mark and considers solely the requirements of the specifications mentioned below.

Wenn gegenüber Dritten auf diesen Prüfbericht Bezug genommen wird, muss dieser Prüfbericht in voller Länge an gleicher Stelle verfügbar gemacht werden.

Whenever reference is made to this test report towards third party, this test report shall be made available on the very spot in full length.



Date of receipt of test sample: 2013-12-10
Date of performance of tests: 2014-01-17 up to 2014-01-20
Testing laboratory: VDE Testing and Certification Institute
Category CC4
Merianstraße 28
63069 Offenbach
Applicant: gabo Systemtechnik GmbH
Am Schaidweg 7
94559 Niederwinkling

Contents:

Clause 1	Description of test sample
Clause 2	Test procedures
Clause 3	Marking of the sample
Clause 4	Construction
Clause 5	Halogen content

1 Description of test sample

The applicant supplied for the test about 160 g plastic plates

Type: moulded part for speed pipe-indoor system, made of flame-retardant polyamide



2 Test procedures

By request of the applicant the following tests were conducted:

- Determination of low levels of chlorine and / or bromine and / or iodine according to DIN EN 60684-2 (VDE 0341-2): 20012-05; sub clause 45.1
- Determination of low levels of fluorine according to DIN EN 60684-2 (VDE 0341-2): 20012-05; sub clause 45.2

3 Marking of the sample

Printing on the plates

6 x L \approx 160 gr

4 Construction

- Length: 250 mm
- Width: 90,0 mm
- Thickness: 1,0
- Colour: white

5 Halogen content

according to DIN EN 60684-2 (VDE 0341-2)

5.1 Conditioning

Before test the samples were conditioned > 16 h at (23 ± 2) °C and (50 ± 5) % relative humidity.



5.2 Determination of low levels of chlorine and/or bromine and or iodine
according to DIN EN 60684-2 (VDE 0341-2) sub clause 45.1

detected **halogen value < 0,014 %** (halogen chlorine/bromine/iodine)

Using this method 0,014% of halogen may be measured

Requirement:
according to EN 60684-3-165 table 2, the halogen content shall be maximum 0,2%

The test requirement has been met.

5.3 Determination of low levels of fluorine
according to DIN EN 60684-2 (VDE 0341-2) sub clause 45.2

(Procedure B - Alizarin-fluorine blue method)
calourimetrically, by formation of a blue-red oligomer fluorine blue complex

detected **halogen value < 0,02%** (halogen fluorine)

Using this method, it is estimated that fluorine levels with values greater than 0,02 % can be detected.

Requirement:
according to EN 60684-3-165 table 2, the halogen content shall be maximum 0,1%

The test requirement has been met

VDE Testing- and Certification Institute
Cables and Cords, Cable Management Systems, Material Tests


Reiner Lehrer


Reinhard Herzog



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and the EMC Directive 2004/108/EC. Accredited according
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IEC certification schemes (IECEE and IECQ) and European
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