

Amendment 1: Test on gases evolved during combustion of materials from cables

Part 2: Determination of acidity (by pH measurement) and conductivity

Amendment No. 1

International adoption identical

Publishing and Approval Dates

Council of Standards Australia Approval: 12 October 2021

New Zealand Standards Approval Board Approval: 6 October 2021

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Summary

This Amendment applies to the following elements:

- Front cover
- Preface
- Amendment 1

Amendment Details

AS/NZS 60754.2:2017 is amended as follows. The amendments should be inserted in the locations as instructed.

Element	Instruction/New text
Front cover	After "IEC 60754-2:2011" <i>add</i> the following: IEC 60754-2:2011/Amd 1:2019 (Incorporating Amendment No. 1)
Preface	<p>1 After first paragraph, <i>add</i> the following: <i>Amendment No. 1 to this Standard was prepared by the joint Standards Australia/Standards New Zealand Committee EL-003, Electric Cables and Wires.</i></p> <p>2 <i>Delete</i> third paragraph and <i>replace</i> with the following: This Standard is an identical with, and has been reproduced from IEC 60754-2:2011 (ED. 2.0), <i>Test on gases evolved during combustion of materials from cables – Part 2: Determination of acidity (by pH measurement) and conductivity</i> and its Amendment No. 1 (2019) which has been added at the end of the source text.</p>
Amd 1 (new)	After Bibliography, <i>add</i> the following Amendment 1 (2019):

FOREWORD

This amendment has been prepared by IEC technical committee 20: Electric cables.

The text of this amendment is based on the following documents:

FDIS	Report on voting
20/1883/FDIS	20/1890/RVD

Full information on the voting for the approval of this amendment can be found in the report on voting indicated in the above table.

The committee has decided that the contents of this amendment and the base publication will remain unchanged until the stability date indicated on the IEC website under "<http://webstore.iec.ch>" in the data related to the specific publication. At this date, the publication will be

- reconfirmed,
- withdrawn,
- replaced by a revised edition, or
- amended.

INTRODUCTION

Add, at the end of the first paragraph, the following new dashed item:

- Part 3: *Measurement of low level of halogen content by ion chromatography*

Replace the last sentence with the following new text:

This part of IEC 60754 is linked with both IEC 60754-1 and IEC 60754-3. The test procedure for obtaining the absorption solution in this part of IEC 60754 is the same as for IEC 60754-3 but the test procedure differs considerably from IEC 60754-1.

1 Scope

Add at the end of the first paragraph the following sentence:

The heating (combustion) procedure of this part of IEC 60754 is the same as in IEC 60754-3.

5.4 Combustion boats

In the last paragraph, replace the sentence “The combustion boat shall then be weighed to an accuracy of 0,1 mg until two identical consecutive weights are obtained.” with the following new text:

The combustion boat shall then be weighed with an analytical balance until two identical consecutive measurements in mg, rounded to one decimal figure, are obtained. The accuracy is described in 5.7.

5.6 Air supply system

Replace the second and third paragraphs, including the NOTE, with the following:

The flow rate of air, ρ , shall be $20 \text{ m/h} \times (\pi/4) \times D^2 \times 10^{-3}$ with a tolerance of $\pm 10 \%$, where D is the internal diameter of the quartz tube.

EXAMPLE

If $D = 30 \text{ mm}$, $20 \text{ m/h} \times (\pi/4) \times D^2 \times 10^{-3} = 14,1 \text{ l/h}$, and the flow rate can be in the range 12,7 l/h to 15,5 l/h.

If $D = 46 \text{ mm}$, $20 \text{ m/h} \times (\pi/4) \times D^2 \times 10^{-3} = 33,2 \text{ l/h}$, and the flow rate can be in the range 29,9 l/h to 36,5 l/h.

NOTE The flow rate of air, ρ , is related to the velocity, v , according to the formula

$$\rho = v \times \frac{\pi D^2}{4} \times 10^{-3}$$

where

D is the internal diameter of the tube (mm);

ρ is the flow rate of air (l/h);

v is the speed of air (m/h).

If $v = 20 \text{ m/h}$, this becomes, $\rho = 15,7 \text{ m/h} \times D^2 \times 10^{-3}$.

Replace under Method 2 the second sentence with the following:

The air shall be filtered and dried and shall be introduced on the inlet side of the quartz glass tube (see Figure 4).

5.7 Analytical balance

Replace the sentence with the following:

The balance shall have a resolution and an accuracy of $\pm 0,1 \text{ mg}$ or better.

5.8 Laboratory glassware

Replace “ISO 1042” with “ISO 1042 Class B”.