

SLOVENSKI STANDARD
SIST EN 60068-2-69:2017/AC:2018
01-junij-2018

Okoljski preskusi - 2-69. del: Preskusi - Preskus Te/Tc: Preskus spajkanja elektronskih komponent in plošč tiskanih vezij z metodo za določanje omočljivosti (merjenje sile)

Environmental testing - Part 2-69: Tests - Test Te/Tc: Solderability testing of electronic components and printed boards by the wetting balance (force measurement) method

Umgebungseinflüsse - Teil 2-69: Prüfungen - Prüfung Te/TC: Prüfung der Lötbarkeit von Bauelementen der Elektronik und Leiterplatten mit der Benetzungswaage (Kraftmessung)

Essais d'environnement - Partie 2-69: Essais - Essai Te/Tc: Essai de brasabilité des composants électroniques et cartes imprimées par la méthode de la balance de mouillage (mesure de la force)

Ta slovenski standard je istoveten z: EN 60068-2-69:2017/AC:2018-03

ICS:

| | | |
|--------|----------------------------------|---------------------------------|
| 19.040 | Preskušanje v zvezi z okoljem | Environmental testing |
| 31.190 | Sestavljeni elektronski elementi | Electronic component assemblies |

SIST EN 60068-2-69:2017/AC:2018 **en**

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EUROPEAN STANDARD
NORME EUROPÉENNE
EUROPÄISCHE NORM

EN 60068-2-69:2017/AC:2018-03

March 2018

ICS 19.040; 31.190

English Version

**Environmental testing - Part 2-69: Tests - Test Te/Tc:
Solderability testing of electronic components and printed boards
by the wetting balance (force measurement) method
(IEC 60068-2-69:2017/COR1:2018)**

Essais d'environnement - Partie 2-69: Essais - Essai Te/Tc:
Essai de brasabilité des composants électroniques et cartes
imprimées par la méthode de la balance de mouillage
(mesure de la force)
(IEC 60068-2-69:2017/COR1:2018)

Umgebungseinflüsse - Teil 2-69: Prüfungen - Prüfung
Te/Tc: Prüfung der Lötbarkeit von Bauelementen der
Elektronik und Leiterplatten mit der Benetzungswaage
(Kraftmessung)
(IEC 60068-2-69:2017/COR1:2018)

This corrigendum becomes effective on 9 March 2018 for incorporation in the English language version of the EN.

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European Committee for Electrotechnical Standardization
Comité Européen de Normalisation Electrotechnique
Europäisches Komitee für Elektrotechnische Normung

CEN-CENELEC Management Centre: Rue de la Science 23, B-1040 Brussels

Endorsement notice

The text of the corrigendum IEC 60068-2-69:2017/COR1:2018 was approved by CENELEC as EN 60068-2-69:2017/AC:2018-03 without any modification.

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IEC 60068-2-69:2017/COR1:2018

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INTERNATIONAL ELECTROTECHNICAL COMMISSION
COMMISSION ÉLECTROTECHNIQUE INTERNATIONALE

IEC 60068-2-69
Edition 3.0 2017-03

IEC 60068-2-69
Édition 3.0 2017-03

ENVIRONMENTAL TESTING –

Part 1: 2-69: Tests – Test Te/Tc: Solderability testing of electronic components and printed boards by the wetting balance (force measurement)

ESSAIS D'ENVIRONNEMENT –

Partie 2-69: Essais – Essai Te/Tc: Essai de brasabilité des composants électroniques et cartes imprimées par la méthode de la balance de mouillage (mesure de la force)

CORRIGENDUM 1

Corrections to the French version appear after the English text.

Les corrections à la version française sont données après le texte anglais.

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7.1.4 Solder contamination control 60068-2-69:2017/AC:2018

Replace Table 2 with the following new table:

Table 2 – Maximum limits of solder bath contaminants

| Contaminant | Maximum mass fraction contaminant limit | |
|-------------|---|---------------------------------------|
| | SnPb alloys ^{a, b} % | Lead-free alloys ^{c, d} % |
| Copper | 0,300 | 1,100 |
| Gold | 0,200 | 0,200 |
| Cadmium | 0,005 | 0,005 |
| Zinc | 0,005 | 0,005 |
| Aluminium | 0,006 | 0,006 |
| Antimony | 0,500 | 0,200 |
| Iron | 0,020 | 0,020 |
| Arsenic | 0,030 | 0,030 |
| Bismuth | 0,250 | 0,250 |
| Silver | 0,100 | 4,000 |
| Nickel | 0,010 | 0,050 |
| Lead | N/A | 0,100 |

^a The tin content of the solder shall be maintained within $\pm 1,5$ % of the nominal alloy being used. Tin content shall be tested at the same frequency as testing for copper/gold contamination. The balance of the bath shall be lead and/or the items listed above.

^b The total of copper, gold, cadmium, zinc, and aluminium contaminants shall not exceed 0,4 %. Not applicable to lead-free alloys.

^c The tin content of the solder shall be maintained within ± 1 % of the nominal alloy being used. Tin content shall be tested at the same frequency as testing for copper/silver concentration. The balance of the bath shall be the items listed above.

^d Maximum contamination limits are applicable for Sn96,5Ag3Cu,5. Other lead-free solder alloy contamination limits may be used upon agreement between user and vendor.

8.2.2 Solder bath wetting balance procedure

Replace the 3rd paragraph to Table 5 with the following new paragraph:

The recommended immersion speed for all components is between 1 mm/s and 5 mm/s, except for leaded non-SMD where between 5 mm/s and 20 mm/s is recommended.

8.2.4.2 Procedure

In the 1st paragraph, replace "7.2.3" with "7.2.1".

10 Information to be given in the relevant specification

In the list item e), replace "8.2.2" with "8.2.3".

In the list item l), replace with the following text and replace "9.2" with "8.2.2, 8.2.3":

Areas to be visually examined for wetting and de-wetting

B.5 Test flux

In the 1st paragraph, replace "8.1.2" with "8.2.2".

B.7.2.1 Stiffness of the spring (see Clause A.1 d))

In the title, replace "A.1 d)" with "A.1 e)".

B.7.2.2 Noise level (see Clause A.1 e))

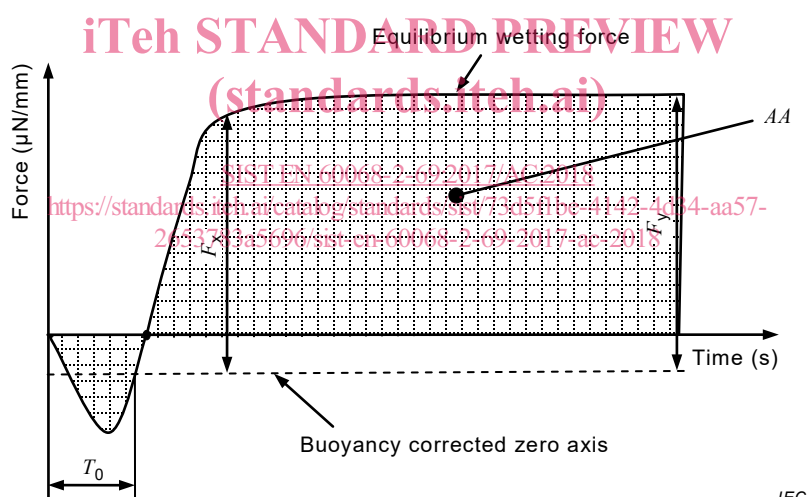
In the title, replace "A.1 e)" with "A.1 c)".

B.7.4.1 Choice of test criteria

Replace "8.2" with "9.2".

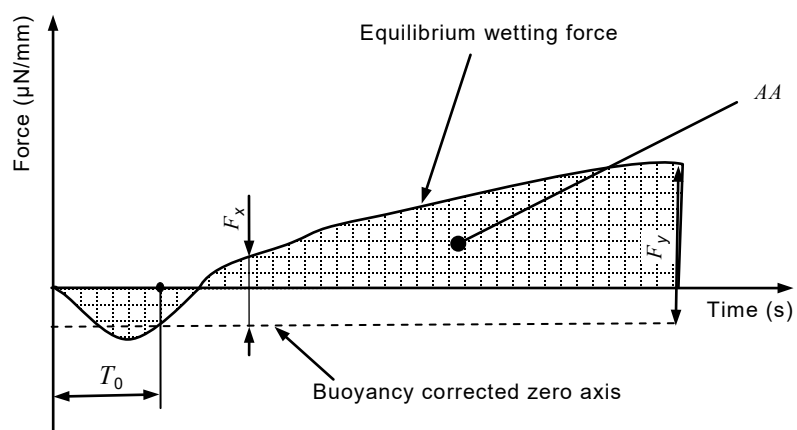
D.2 Evaluation criteria for components

Replace Figure D.1 and Figure D.2 with the following new figures:



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Figure D.1 – Set A wetting curve



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Figure D.2 – Set B wetting curve

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