

TEST REPORT

ROGERS CORPORATION

171 WEST SAINT CHARLES ROAD, CAROL STREAM, ILLINOIS 60188

REPORT NO.KE/2019/C0904

REPORT ISSUE DATE: 2019/12/23

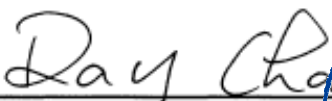
PAGE: 1 OF 6

THE FOLLOWING SAMPLE(S) WAS/WERE SUBMITTED AND IDENTIFIED BY/ON BEHALF OF THE CLIENT AS :

SAMPLE DESCRIPTION : SILICONE BASE MATERIAL.
COLOR : GRAY.
STYLE/ITEM NO. : HT-820 GRAY 0.188".
LOT NO. : 19J05017003.
MATERIAL COMPOSITION : SILICONE FOAM.
COUNTRY OF ORIGIN : USA.
COUNTRY OF DESTINATION : TAIWAN.
SAMPLE RECEIVED : 2019/12/17.
TESTING PERIOD : 2019/12/17 TO 2019/12/23.
SAMPLE SUBMITTED BY : ROGERS CORPORATION.

TEST REQUESTED : (1)AS SPECIFIED BY CLIENT, WITH REFERENCE TO RoHS 2011/65/EU ANNEX II AND AMENDING DIRECTIVE (EU) 2015/863 TO DETERMINE CADMIUM, LEAD, MERCURY, CR(VI), PBBs, PBDEs, DBP, BBP, DEHP, DIBP CONTENTS IN THE SUBMITTED SAMPLE(S).
(2) PLEASE REFER TO NEXT PAGES FOR THE OTHER ITEM(S).

TEST RESULT(S) : PLEASE REFER TO NEXT PAGE(S).


Ray Chang Ph.D. / Manager - Tech
Signed for and on behalf of
SGS Taiwan Limited
Chemical Laboratory-Kaohsiung



TEST REPORT

REPORT NO.KE/2019/C0904
 REPORT ISSUE DATE: 2019/12/23
 PAGE: 2 OF 6

TEST RESULT(S) :

| TEST ITEM(S) | UNIT | METHOD | MDL | RESULT |
|---------------------------------------|------|---|-----|--------|
| CADMIUM (Cd) | ppm | WITH REFERENCE TO IEC 62321-5:2013 AND PERFORMED BY ICP-OES. | 2 | n.d. |
| LEAD (Pb) | ppm | WITH REFERENCE TO IEC 62321-5:2013 AND PERFORMED BY ICP-OES. | 2 | n.d. |
| MERCURY (Hg) | ppm | WITH REFERENCE TO IEC 62321-4:2013 AND PERFORMED BY ICP-OES. | 2 | n.d. |
| CHROMIUM VI | ppm | WITH REFERENCE TO IEC 62321-7-2:2017 AND PERFORMED BY UV-VIS. | 8 | n.d. |
| POLYBROMINATED BIPHENYL (PBBs) | --- | --- | --- | --- |
| MONOBROMOBIPHENYL | ppm | WITH REFERENCE TO IEC 62321-6: 2015 AND PERFORMED BY GC/MS. | 5 | n.d. |
| DIBROMOBIPHENYL | ppm | WITH REFERENCE TO IEC 62321-6: 2015 AND PERFORMED BY GC/MS. | 5 | n.d. |
| TRIBROMOBIPHENYL | ppm | WITH REFERENCE TO IEC 62321-6: 2015 AND PERFORMED BY GC/MS. | 5 | n.d. |
| TETRABROMOBIPHENYL | ppm | WITH REFERENCE TO IEC 62321-6: 2015 AND PERFORMED BY GC/MS. | 5 | n.d. |
| PENTABROMOBIPHENYL | ppm | WITH REFERENCE TO IEC 62321-6: 2015 AND PERFORMED BY GC/MS. | 5 | n.d. |
| HEXABROMOBIPHENYL | ppm | WITH REFERENCE TO IEC 62321-6: 2015 AND PERFORMED BY GC/MS. | 5 | n.d. |

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責。本報告未經本公司書面許可，不可部分複製。
 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/en/terms-and-conditions/terms-e-document. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

TEST REPORT

REPORT NO.KE/2019/C0904
 REPORT ISSUE DATE: 2019/12/23
 PAGE: 3 OF 6

| TEST ITEM(S) | UNIT | METHOD | MDL | RESULT |
|--|------|---|-----|--------|
| HEPTABROMOBIPHENYL | ppm | WITH REFERENCE TO IEC 62321-6: 2015 AND PERFORMED BY GC/MS. | 5 | n.d. |
| OCTABROMOBIPHENYL | ppm | WITH REFERENCE TO IEC 62321-6: 2015 AND PERFORMED BY GC/MS. | 5 | n.d. |
| NONABROMOBIPHENYL | ppm | WITH REFERENCE TO IEC 62321-6: 2015 AND PERFORMED BY GC/MS. | 5 | n.d. |
| DECABROMOBIPHENYL | ppm | WITH REFERENCE TO IEC 62321-6: 2015 AND PERFORMED BY GC/MS. | 5 | n.d. |
| POLYBROMINTED BIPHENYL ETHERS (PBDEs) | --- | --- | --- | --- |
| MONOBROMODIPHENYL ETHER | ppm | WITH REFERENCE TO IEC 62321-6: 2015 AND PERFORMED BY GC/MS. | 5 | n.d. |
| DIBROMODIPHENYL ETHER | ppm | WITH REFERENCE TO IEC 62321-6: 2015 AND PERFORMED BY GC/MS. | 5 | n.d. |
| TRIBROMODIPHENYL ETHER | ppm | WITH REFERENCE TO IEC 62321-6: 2015 AND PERFORMED BY GC/MS. | 5 | n.d. |
| TETRABROMODIPHENYL ETHER | ppm | WITH REFERENCE TO IEC 62321-6: 2015 AND PERFORMED BY GC/MS. | 5 | n.d. |
| PENTABROMODIPHENYL ETHER | ppm | WITH REFERENCE TO IEC 62321-6: 2015 AND PERFORMED BY GC/MS. | 5 | n.d. |
| HEXABROMODIPHENYL ETHER | ppm | WITH REFERENCE TO IEC 62321-6: 2015 AND PERFORMED BY GC/MS. | 5 | n.d. |
| HEPTABROMODIPHENYL ETHER | ppm | WITH REFERENCE TO IEC 62321-6: 2015 AND PERFORMED BY GC/MS. | 5 | n.d. |

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company.除非另有說明，此報告結果僅對測試之樣品負責。本報告未經本公司書面許可，不可部分複製。
 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/en/terms-and-conditions/terms-e-document. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

TEST REPORT

REPORT NO.KE/2019/C0904
 REPORT ISSUE DATE: 2019/12/23
 PAGE: 4 OF 6

| TEST ITEM(S) | UNIT | METHOD | MDL | RESULT |
|---|------|--|-----|--------|
| OCTABROMODIPHENYL ETHER | ppm | WITH REFERENCE TO IEC 62321-6: 2015 AND PERFORMED BY GC/MS. | 5 | n.d. |
| NONABROMODIPHENYL ETHER | ppm | WITH REFERENCE TO IEC 62321-6: 2015 AND PERFORMED BY GC/MS. | 5 | n.d. |
| DECABROMODIPHENYL ETHER | ppm | WITH REFERENCE TO IEC 62321-6: 2015 AND PERFORMED BY GC/MS. | 5 | n.d. |
| PHTHALATES | --- | --- | --- | --- |
| DI-ISOBUTYL PHTHALATE (DIBP) (CAS NO.84-69-5) | ppm | WITH REFERENCE TO IEC 62321-8:2017. ANALYSIS WAS PERFORMED BY GC/MS. | 50 | n.d. |
| DIBUTYL PHTHALATE (DBP) (CAS NO.84-74-2) | ppm | WITH REFERENCE TO IEC 62321-8:2017. ANALYSIS WAS PERFORMED BY GC/MS. | 50 | n.d. |
| BUTYL BENZYL PHTHALATE (BBP) (CAS NO.85-68-7) | ppm | WITH REFERENCE TO IEC 62321-8:2017. ANALYSIS WAS PERFORMED BY GC/MS. | 50 | n.d. |
| BIS(2-ETHYLHEXYL) PHTHALATE (DEHP) (CAS NO.117-81-7) | ppm | WITH REFERENCE TO IEC 62321-8:2017. ANALYSIS WAS PERFORMED BY GC/MS. | 50 | n.d. |
| HALOGEN (F, Cl, Br, I) CONTENT | --- | --- | --- | --- |
| HALOGEN-FLUORINE (F) (CAS No.: 14762-94-8) | ppm | WITH REFERENCE TO BS EN 14582:2016. ANALYSIS WAS PERFORMED BY IC. | 50 | 350 |
| HALOGEN-CHLORINE (Cl) (CAS No.: 22537-15-1) | ppm | WITH REFERENCE TO BS EN 14582:2016. ANALYSIS WAS PERFORMED BY IC. | 50 | n.d. |
| HALOGEN-BROMINE (Br) (CAS No.: 10097-32.2) | ppm | WITH REFERENCE TO BS EN 14582:2016. ANALYSIS WAS PERFORMED BY IC. | 50 | n.d. |
| HALOGEN-IODINE (I) (CAS No.: 14362-44-8) | ppm | WITH REFERENCE TO BS EN 14582:2016. ANALYSIS WAS PERFORMED BY IC. | 50 | n.d. |

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company. 除非另有說明，此報告結果僅對測試之樣品負責。本報告未經本公司書面許可，不可部分複製。
 This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/en/terms-and-conditions/terms-e-document. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

TEST REPORT

REPORT NO.KE/2019/C0904
REPORT ISSUE DATE: 2019/12/23
PAGE: 5 OF 6

NOTE 1 : mg/kg=ppm

NOTE 2 : MDL = METHOD DETECTION LIMIT.

NOTE 3 : n.d. = NOT DETECTED.

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company.除非另有說明，此報告結果僅對測試之樣品負責。本報告未經本公司書面許可，不可部分複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/en/terms-and-conditions/terms-e-document. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.

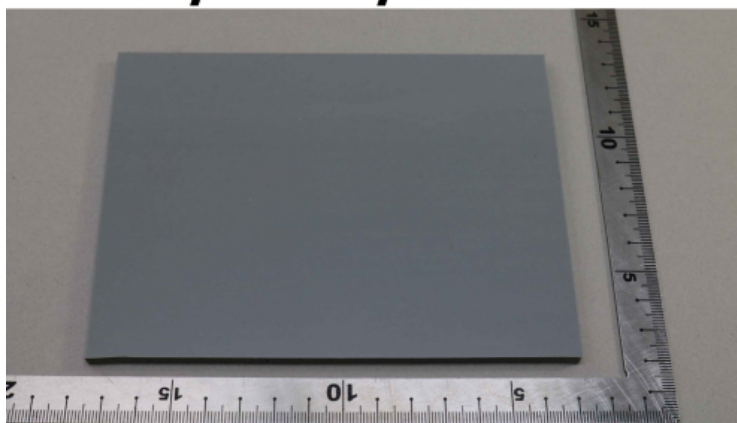
TEST REPORT

REPORT NO.KE/2019/C0904
REPORT ISSUE DATE: 2019/12/23
PAGE: 6 OF 6

SAMPLE PHOTO

(The tested sample / part is marked by an arrow if it's shown on the photo.)

KE/2019/C0904



**** END OF REPORT ****

Unless otherwise stated the results shown in this test report refer only to the sample(s) tested. This test report cannot be reproduced, except in full, without prior written permission of the Company.除非另有說明，此報告結果僅對測試之樣品負責。本報告未經本公司書面許可，不可部分複製。
This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at www.sgs.com/terms_and_conditions.htm and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at www.sgs.com/en/terms-and-conditions/terms-e-document. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document is unlawful and offenders may be prosecuted to the fullest extent of the law.