

### Test Report

No.: ETR22301856

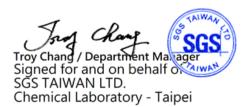
Date: 11-Mar-2022

Page: 1 of 4

MITSUBISHI GAS CHEMICAL CO., INC. ELECTRONICS MATERIAL DIVISION 5-2, MARUNOUCHI 2-CHOME, CHIYODA-KU, TOKYO 100-8324, JAPAN

#### The following sample(s) was/were submitted and identified by the applicant as:

Sample Submitted By Sample Name		MITSUBISHI GAS CHEMICAL CO., INC. ELECTRONICS MATERIAL DIVISION COPPER CLAD LAMINATES & PREPREGS
Style/Item No.		CCL-HL830NX(TYPE-A)(WITHOUT COPPER FOIL), CCL-HL832NX(TYPE-A)(WITHOUT COPPER FOIL), GHPL-830NX(TYPE-A), GHPL-832NX(TYPE-A)
Lot No.	=====	MGC 2022-013
Sample Receiving Dat Testing Period		07-Mar-2022 07-Mar-2022 to 11-Mar-2022
Test Requested	:	As specified by client, to test Halogen-Fluorine, Chlorine, Bromine, Iodine in the submitted sample.
Test Results	:	Please refer to following pages.





This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="https://www.sgs.com.tw/terms-of-service">https://www.sgs.com.tw/terms-of-service</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com.tw/terms-of-service">https://www.sgs.com.tw/terms-of-service</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com.tw/terms-of-service">https://www.sgs.com.tw/terms-of-service</a> Attention 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 instruction, 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. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.

SGS Taiwan Ltd. 台灣檢驗科技股份有限公司



### **Test Report**

No.: ETR22301856

Date: 11-Mar-2022

Page: 2 of 4

MITSUBISHI GAS CHEMICAL CO., INC. ELECTRONICS MATERIAL DIVISION 5-2, MARUNOUCHI 2-CHOME, CHIYODA-KU, TOKYO 100-8324, JAPAN

#### Test Part Description

No.1 : BLACK SHEET

#### Test Result(s)

Test Item(s)	Method	Unit	MDL	Result
				No.1
Fluorine (F) (CAS No.: 14762-94-8)	With reference to BS EN 14582: 2016,	mg/kg	50	902
	analysis was performed by IC.			
Chlorine (Cl) (CAS No.: 22537-15-1)	With reference to BS EN 14582: 2016,	mg/kg	50	106
	analysis was performed by IC.			
Bromine (Br) (CAS No.: 10097-32-2)	With reference to BS EN 14582: 2016,	mg/kg	50	n.d.
	analysis was performed by IC.			
lodine (I) (CAS No.: 14362-44-8)	With reference to BS EN 14582: 2016,	mg/kg	50	n.d.
	analysis was performed by IC.			

Note :

1. mg/kg = ppm ; 0.1wt% = 0.1% = 1000ppm

2. MDL = Method Detection Limit

3. n.d. = Not Detected (Less than MDL)

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="https://www.sgs.com.tw/terms-of-service">https://www.sgs.com.tw/terms-of-service</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com.tw/terms-of-service">https://www.sgs.com.tw/terms-of-service</a>. 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 instruction, 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. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.



## Test Report

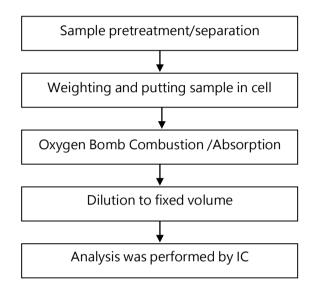
No.: ETR22301856

Date: 11-Mar-2022

Page: 3 of 4

MITSUBISHI GAS CHEMICAL CO., INC. ELECTRONICS MATERIAL DIVISION 5-2, MARUNOUCHI 2-CHOME, CHIYODA-KU, TOKYO 100-8324, JAPAN

### Analytical flow chart of Halogen



This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="https://www.sgs.com.tw/terms-of-service">https://www.sgs.com.tw/terms-of-service</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com.tw/terms-of-service">https://www.sgs.com.tw/terms-of-service</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com.tw/terms-of-service">https://www.sgs.com.tw/terms-of-service</a>. 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 instruction, 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. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.



### Test ReportNo.: ETR22301856

Date: 11-Mar-2022

Page: 4 of 4

MITSUBISHI GAS CHEMICAL CO., INC. ELECTRONICS MATERIAL DIVISION 5-2, MARUNOUCHI 2-CHOME, CHIYODA-KU, TOKYO 100-8324, JAPAN

### \* The tested sample / part is marked by an arrow if it's shown on the photo. \*

# ETR22301856



\*\* End of Report \*\*

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <a href="https://www.sgs.com.tw/terms-of-service">https://www.sgs.com.tw/terms-of-service</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com.tw/terms-of-service">https://www.sgs.com.tw/terms-of-service</a> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <a href="https://www.sgs.com.tw/terms-of-service">https://www.sgs.com.tw/terms-of-service</a>. 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 instruction, 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. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested.