

## 試驗報告

數:1

報告編號:HV-12-08909X

報告日期: 2013年01月08日

OF

新耀光電股份有限公司

新北市新莊區思源路 50 號

我們依照顧客的要求,根據顧客提供的產品敘述如下:

產品敘述:

LED 模組套件材質比例

產品型號:

NLP20

生產或供應廠商:

新耀光電股份有限公司

原產國:

台灣

我們依照顧客的要求,根據顧客送交之樣品進行試驗結果如下:

委託試驗要求:(依照顧客提供之測試規格進行試驗,詳細內容請參照附頁。)

(1) 材質分析

(2) 熱重分析

試驗結果:

一如附頁所示-

收件日期:

2012年12月26日

試驗日期:

2012年12月27日~2013年01月03日

紫仁夫, 報告簽署人

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,不可部份複製。

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.



antly pay not later than 30 days

# 試驗報告

報告編號: HV-12-08909X 頁 數:2 OF 8

報告日期: 2013年01月08日

## (1) 材質分析

試驗設備:

 
 名稱
 廠牌
 型號

 傅利葉轉換紅外光光譜分析儀 (FTIR)
 VARIAN
 FTS-3000+UMA 600

實驗室環境條件:

環境溫度:

23±2°C

相對濕度:

50±5%RH

試驗方法:

ASTM E1252-98

Standard Practice for General Techniques for Obtaining Infrared

Spectra for Qualitative Analysis

#### 試驗結果:

試驗樣品	試驗結果	
1109487	主要成分聚碳酸酯 Polycarbonate/PC	f.
1109487 灰份	主要成分玻璃纖維 Glass Fiber	
1204953	204953 主要成分聚碳酸酯 Polycarbonate/PC	
204953 灰份 主要成分玻璃纖維 Glass Fiber		

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,不可部份複製。

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 of Service printed overleaf, available on request or accessible at www.sgs.com/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.

TWA 9 1 6 0 1 5 5

1010



# 試驗報告

報告編號:HV-13-00581X

頁 數:1 OF 6 報告日期:2013年02月01日

新耀光電股份有限公司

新北市新莊區思源路 50 號

我們依照顧客的要求,根據顧客提供的產品敘述如下:

產品敘述:

LED 套件材質比例

產品型號:

P20-2013-NL

生產或供應廠商:

新耀光電股份有限公司

原產國:

台灣

我們依照顧客的要求,根據顧客送交之樣品進行試驗結果如下:

委託試驗要求:(依照顧客提供之測試規格進行試驗,詳細內容請參照附頁。)

(1) 材質分析

(2) 熱重分析

試驗結果:

一如附頁所示-

收件日期:

2013年01月24日

試驗日期:

2013年01月25日~2013年01月29日

報告簽署人

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,不可部份複製。

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.

TWA 9 1 6 1 8 0 5



lator than 30 days

# 試驗報告

報告編號:HV-13-00581X 數:2

報告日期: 2013年02月01日

OF

(1) 材質分析

試驗設備:

名稱	廢牌	型號	
傅利葉轉換紅外光光譜分析儀(FTIR)	VARIAN	FTS-3000+UMA 600	

實驗室環境條件:

環境溫度:

23±2°C

相對濕度:

50±5%RH

試驗方法:

ASTM E1252-98 Standard Practice for General Techniques for Obtaining Infrared Spectra for Qualitative Analysis

#### 試驗結果:

樣品名稱	試驗結果	
LED 套件	主要成分為聚碳酸酯 Polycarbonate/PC	
LED 套件灰份	主要成分為玻璃纖維 Glass Fiber	

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,不可部份複製。

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,不可部份複製。
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 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.

TWA 9 1 6 1 8 0 4



# 試驗報告

報告編號:HV-13-00581X 數:4 OF

報告日期: 2013年02月01日

## (2) 熱重分析

試驗設備:

名稱	廢牌	型號
熱重分析儀(TGA)	TA	O500

### 實驗室環境條件:

環境溫度:

23±2°C

相對濕度:

50±5%RH

#### 試驗方法:

參考 ASTM D6370-99 Standard Test Method for Rubber-Compositional Analysis by Thermogravimetry

### 試驗條件:

- 1. 通入純度 99.995%超高純度氮氣,流量 75ml/min。
- 2. 平衡溫度至 50℃,恆溫 2 分鐘。
- 3. 以 10°C/min 的升溫速率自 50°C掃描至 560°C。
- 4. 降溫至 300℃,恆溫 2 分鐘。
- 5. 通入純度 99.995%超高純度氧氣,流量 75ml/min。
- 6. 以 10°C/min 的升溫速率自 300°C 掃描至 800°C。

#### 試驗結果:

試驗項目		試驗結果
熱裂解溫度(℃)	Td1	483.59
	Td2	486.86
有機物含量(%)		98.3
玻纖含量(%)		1.5

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,不可部份複製。

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.

TWA 9 1 6 1 8 0 2 TWA9161802