

UC BACON

Graphene Innovating Your Life

Company Brochure

2028



UC BACON Co. Ltd.

UC Bacon, a graphene manufacture in Taiwan, is dedicated to develop graphene finished products.

- A Graphene Production Plant with Annual Capacity of 100T
- A Graphene Suspension Production Line with Month Capacity of 1T
- Leading Production for Functional Graphene Coating and Graphene Membrane

Our Core Technology

GreenPhene[®]



UniPerse[®]



UniTran[®]



What We Can Provide



Graphene material produced by Eco-friendly process



Comprehensive Product Portfolio Graphene suspension, coating and membrane/film

Technical Support : Product Co-development, performance testing



Core technology

#1 Graphene Material - GreenPhene®

#2 Graphene Suspension- UniPerse[®]

#3 Graphene Membrane – UniTran®



Greenphene Direct Continuous Physical Technology

Direct Continuous Physics Technology is a unique dry-typed process for graphene mass production with three features of eco-friendly, energy saving and highly efficiency.

- **Direct** Graphite to Graphene directly
- Continuous Compact production process
- **Physics** Pure Physical Exfoliation



Our idea is trying to keep the environment safe while we massively produce the graphene. No any chemical or solvent would be used in our process.

- No Use For Chemicals
- No Use For Acid And Base Solution
- No Use For Solvent As Reacting Materials



UC Bacon Co. Ltd.



SGS

Textile Laboratory			
Test Report	No: TX20865A /2019 /SP	Date: Feb. 27, 2019	Page 1 of 2
UC Bacon Company No. 161, Xinfu Rd., 0 32845, Taiwan (R.O.	Suanyin Dist., Tsoyuan City		
The following sample	was submitted and identified	by applicant as:	
Sample Description	: One samp	ie of graphene powder	
Color	: Silver Gra	Y	
Fiber Content	: Carbon		

DarkPow SP : UC Bacon Company Limited Sample Receiving Date Feb. 22, 2019

Test Performance Period

Test Performed

Style No.

Applicant

Selected test(s) as requested by applicant.

Feb. 22, 2019 to Feb. 27, 2019



Textile Laboratory

Test Report No: TX20865A /2019 /SP Date: Feb. 27, 2019 Page 2 of 2

Test Results:

EN 71 Part 3:1994 + A1:2000/AC:2002 - Migration of Certain Elements

Method : With reference to EN /1 Part 31994 + A1:2000/A0/2002, Analysis was performed by K2P-CE3.

Sample Photo

Test Item	Result (mg/kg)	Detection Limit (mg/kg) 5	
Soluble Lead (Pb)	ND		
Soluble Antmony (Sb)	ND	5	
Soluble Arsenic (As)	ND	2.5	
Soluble Barlun (Ba)	ND	10	
Soluble Cadmum (Cd)	ND	5	
Soluble Chronium (Cr)	ND	5	
Boluble Mercury (Hg)	ND	5	
Soluble Selenum (Se)	ND	10	

Sample Description 1. One sample of graphene powder

Note : L maika = mililaram per kilogram 2. ND - Not Detected 3. Results shown are of the adjusted analytical result

Tested by relevant SGS laboratory.

Test Item		Result (mg/kg)	Detection Limit	
		1	(mg/kg)	
Soluble Lead	(Pb)	ND	5	
Soluble Antimony	(Sb)	ND	5	
Soluble Arsenic	(As)	ND	2.5	
Soluble Barium	(Ba)	ND	10	
Soluble Cadmium	(Cd)	ND	5	
Soluble Chromium	(Cr)	ND	5	
Soluble Mercury	(Hg)	ND	5	
Soluble Selenium	(Se)	ND	10	

Non detection for the common 8 heavy metal !

en en de energie aussie Terranel Continent Percenter alle ander 11 julie - Norman Administration des federer Administration de la Administration anderer Administration Company's federations enders. Fang The Carpory's and required by this is to Cart and the incoment from out an ender particular is transmission from an endering of The Annual Annual Cart and Annual I. M. without and a contract approved of the Campery. Any considerable abundant, heging or the Machine Annual and a presented in the Indone science of the law.

the Table Consults First, Tables, Line Table (2), Tables (2), A Star (2), A St



SGS 約減實驗室 Test Report 報告號碼: TX71387 /2021 /PL日期: 2021 年 07 月 26 日頁数:十二 之 一 頁	Textile Laboratory Test Report No: TX71387A /2021 /PL Date: July 26, 2021 Page 1 of 13
字興暖景殿份有限公司 桃園市觀音區新當路161 號	UC Bacon Company Limited No. 161, Xinfu Rd., Guanyin Dist., Taoyuan City 32845, Taiwan (R.O.C.)
我们依照客户的要求,根據申請者送交的樣品進行測試如下:	The following sample was submitted and identified by applicant as: Sample Description : Graphene Powder
振品版述:石墨烯粉膛 颜 色 :纸黑色	Color : Silver Gray Manufacturer : UC Bacon Company Limited
生產/供應商 : 字興碳素戰份有限公司	Country of Origin : Taiwan
原 產 國 寧 : 台灣 中 請 者 : 字興碳素殷份有限公司	Applicant : UC Bacon Company Limited Sample Receiving Date : July 16, 2021
收件日期 : 2021年07月16日 測 試 週 期 : 2021年07月16日至2021年07月26日	Test Performance Period : July 16, 2021 to July 26, 2021 As requested by client, SVHC screening is performed according to:
測 試 要 求 : 基於歐洲化學品管理署截止 2021 年 7 月 8 日公佈的供授權審議的高 關注物質候還清單(根據歐盟第 1907/2006 號 REACH 法規),對 219 種 高關注物質進行節分測試。	Two hundred and nineteen (219) substances in the Candidate List of Substances of Very High Concern (SVHC) for authorization published by European Chemicals Agency (ECHA) on and before July. 08, 2021 regarding Regulation (EC) No 1907/2006 concerning the REACH.
测 校 卡 法 : 請參照下一頁	Test Results : Please refer to next page(s). Summary :
總結: 根據具體的測試範圍和分析技術,標品中測試的高關注物質濃度 都≤ 0,1%(Ψ/₩)。	According to the specified scope and analytical techniques, concentrations of tested SVHC PASS are ≤ 0.1% (w/w) in the submitted sample.
	Remark: Test results have been taken from report number No: TX71387/2021/PL_Date: duty 26, 2021
合満檢驗科技股份有限 正 多度 多度 主日 小	Signed for and on behalf of a second or the company and with the last report offer only to be a sequential or request or a sequential and information contained therean reflects the company a finding at the displaying and with the limit of the first finding of the sequential contained therean reflects the company a finding at the displaying at the displaying and with the limit of the first finding of the sequential contained therean reflects the company a finding at the displaying and the time transaction of the sequential company at the sequential company. The sequential company and with the set report content a set the sequential company and the set report contents and the responsibility is to fit is company.
Hade rights and adlighters and with seconds decrements. This framework according to provide add an explain RL where a provide the Company. Any unsubset of the Station, Regary or fully taken of the second or regressions of RL's decrement's and additional distribution of the fully. RDS Takens (AL) In 20, We Chan Panel, New Taylor backing the presenced to the Taken's RDS Takens (AL) In 20, We Chan Panel, New Taylor backing the Taken's According to the Taken's	of the content or appearance of this document is unlawful and offenders may be prosecuted to the fulleet extent of the iaw." SoS Taiwan Lid. No. 31. Wu Chruan Road. New Table Industrial Park. Wu Ku District. New Table City. Taiwan /# 6 % % % % % % % % % % % % % % % % % %

BOS Talenas Ltd.	Ha. 31, MarChyvan Pleas, Haw'	Table I Industrial Park, WA/Ku Chokal, Kew Table I City, Tak	141、陶大学系统高剧大学学讲教系展示的 氮	
全部法律法法院会议部公司	4 (888-2) 2288-2838	Fy888-3) 3388-3337	senses her and comp	
			10.00	And a state of the second

 SG5 Talwan Ltd.
 No. 31, Wu Chyuan Road, New Taipel Industral Park, Wu Ku District, New Taipel City, Talwan /新え々正統協共査業重要正確応31 使 台灣檢驗科批股份有限公司
 Yu Chyuan Road, New Taipel Industral Park, Wu Ku District, New Taipel City, Talwan /新え々正統協共査業重要正確応31 使

Member of the SGS Group



SGS

測試報告

簽名有效 For Question Please Contact the SGS www.sgs.com.tw



Test Report

登靖(No.): ETR22306706 日期(Date): 07-Apr-2022

RE(Page): 1 of 4

.....

中実破業股份有限公司 (UC BACON COMPANY LTD.) 株園市株園西春日路1490號3樓23 (3F.-3, NO.1490, CHUNRI RD, TAOYUAN DIST, TAOYUAN CITY30051, TAIWAN(R.O.C)]

applicant as): 这種業務(Sample Submitted By)	: 宁喜敬要股份有缔公司 (JC BACON COMPANY LTD.)
標品名稱(Sample Name)	: GRAPHENE POWDER(石墨總約權)
權品型號(Style/Item No.)	: GREENPHENE
收件日(Sample Receiving Date)	: 29-Mar-2022
RISCAIL M(Testing Period)	: 29-Mar-2022 to 07-Apr-2022

第試需求(Test Requested) :

第試結果(Test Results)

算象號下一頁 (Please refer to following pages.)

信望我戶指定、刻試處棄-氣、氣、溝、鍋。 (As specified by client, to test

Halogen-Fluorine, Chlorine, Bromine, Iodine in the submitted sample.)

SGS

測試報告

Test Report

登碼(No.): ETR22306706 日期(Date): 07-Apr-2022

ME(Page): 2 of 4

学興装業股份有限公司 (UC BACON COMPANY LTD.) 株園市株園芸専日路1490號3様之3 (3F.-3, NO.1490, CHUNRI RD, TAOYUAN DIST, TAOYUAN CITY30051, TAIWAN(R.O.C))

测试器位架话 (Test Part Description)

No.1 : 幕色和末 (BLACK POWDER)

测试结束 (Test Results)

潮放港日 (Test items)	潮試方法 (Method)	単位 (Unit)	MDL	結果 (Result) No.1	
K (F) (Fluorine (F)) (CAS No.: 14762-94- 8)	参考85 EN 14582: 2016 - 以解子書析儀分析。 (With reference to BS EN 14582: 2016, analysis was performed by IC.)	mg/kg	50	n.d.	
K (Cl) (Chlorine (Cl)) (CAS No: 22537- 15-1)	参考85 EN 14582: 2016 - 以助子屋析優分析。 (With reference to 85 EN 14582: 2016, analysis was performed by IC.)	mg/kg	50	n.d.	
(Br) (Bromine (Br)) (CAS No.: 10097- 12-2)	第号BS EN 14582: 2016 - 以助子量析優分析。 (With reference to BS EN 14582: 2016, analys) was performed by IC.)	mg/kg	50	n.d.	
謝 (!) (lodine (!)) (CAS Na: 14362-44-8)	参考85 EN 14582: 2016 - 以館子曽村優分析。 (With reference to 85 EN 14582: 2016, analysis was performed by IC.)	mg/kg	50	n.d.	

備註(Note):

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

2. MDL = Method Detection Limit (方法領刺權限值)

3. n.d. = Not Detected (末種出); 小剂MDL/Less than MDL

roy Chard / Department Mall Signed for and on behalf dealers SGS TAIWAN LTD. Chemical Laboratory - Taipei

The bound of the active for Company and part is to Team Exactline of Ferding states in a special of the team is a source of a state of the bound active team is a state of team is a state

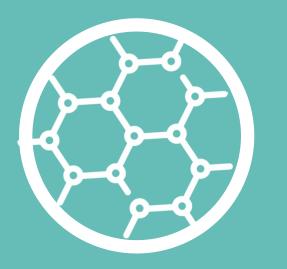
● 長州王殿嘉新会員書書高古書士書 25 名 1+005(32)2399 3939 1+855(32)2399 3237 25, Wu Chysen 7th Road, New Table Industrial Park, Wu Ku Diatud, New Tablei City, Tabaran, New Tabaran, New Tablei City, Tabaran, New Tabaran, New Tablei City, The instruction and by the Groups whigh is the format familiars of the instruction of analysis on the same instruction of the instruction of a same instruction of the instruction of a same instructi



Core Technology #2

Graphene Suspension





20wt%

Most Concentrated dispersion with good rheology and multiple solvent options





Textile

- ✓ Heat dissipated yarns /Fabrics
- ✓ Water repellent/Anti-bacterial yarns/fabrics
- ✓ Electrical heating/FR heating



- ✓ Conductive paste/adhesive
- ✓ Thermal radiation coating
- ✓ Heat dissipation film
- ✓ Heat dissipation laminated film



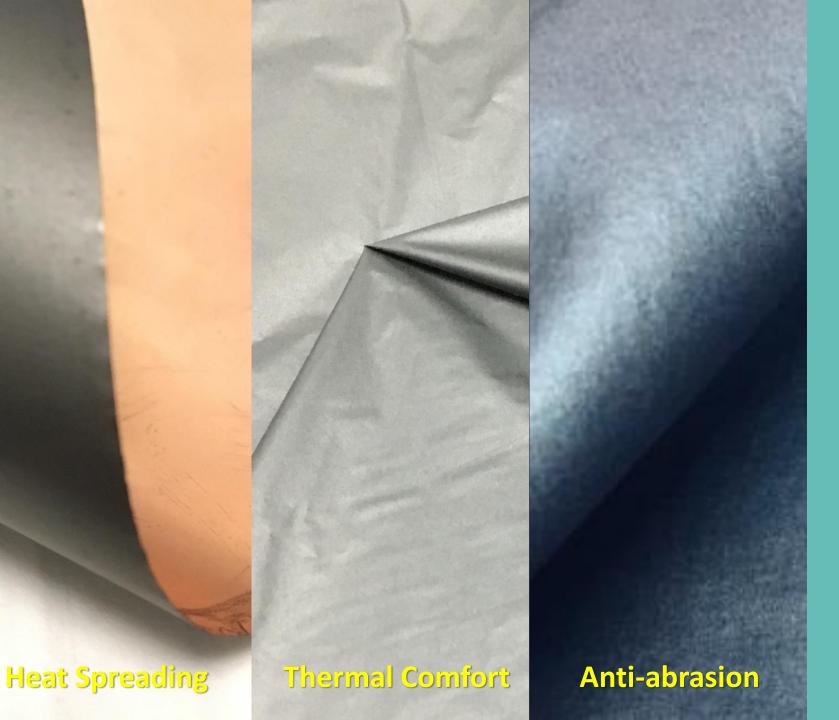
- Electrical Conductivity
- ✓ High electrical conductive film
- ✓ EMI shielding film
- ✓ Electrical conductive ink
- ✓ Anti-static coating

We are the "ONLY" 1 manufacture who can provide the concentrated graphene suspensions with graphene content up to 20wt% for both water and organic solvent.

Graphene Suspension : UniPerse®

ltem	properties
Appearance	Thick solutions
Transparency	No
Laternal size (µm)	≤ 1.0
Number of layers	≤ 5
Solid content (wt%)	20
Solvent type	Organic solvent and Water
Range of Viscosity (cps)	500-3000
Stable period (days)	> 90







Core Technology # 3

Graphene Membrane

Waterproof Breathable

- Major function on thermal regulation, anti-abrasion.
- Hydrophilic PU, microporous
 PU and thermal plastic PU are all available.

Well-distributed structure

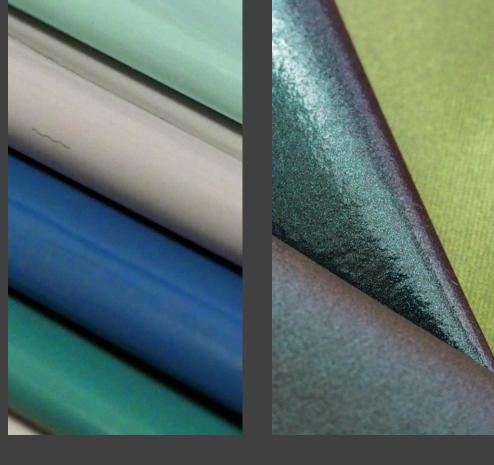
ltems	Specific Gravity	Thickness (um)	Moisture Permeability (g/m²-24hrs)	Water Resistance Test (mmH₂O)	Functionality Description
GM-S050	1.3-1.5	18-22	>10000 (JIS L1099 B-1)	> 10000 (JIS L1092)	- Anti-abrasion - Waterproof
GM-S100	1.3-1.5	18-22	> 10000 (JIS L1099 B-1)	> 10000 (JIS L1092)	 Waterproof, Breathable Wearing Comfort
GM-W050		18-22	<1000 (JIS L1099 B-1)	> 5000 (JIS L1092)	 Waterproof, Waterborne, Low VOC Anti-abbrasion
GP-P100	1.3-1.5	40-45	>7000 (JIS L1099 A-1)	> 10000 (JIS L1092)	Waterproof, BreathableWearing Comfort
GT-T100	1.3-1.5	25-30	<1000 (JIS L1099 B-1)	> 5000 (JIS L1092)	WaterproofAnti-abrasion, Heat Dissipation
EM-050	1.3-1.5	40-45	<1000 (JIS L1099 B-1)	> 5000 (JIS L1092)	WaterproofElectrical Conduction, Foldable
LB-200S	1.3-1.5	40-45	<1000 (JIS L1099 B-1)	> 5000 (JIS L1092)	WaterproofLight-Blocking, Heat Insulation





Functional Colorful

- Applicable to hydrophilic PU and TPU
- Mainly for face laminating material
- Waterproof and Anti-abrasion



ColorPhene[®]

Morandi tone and Metallic shimmer

Iridesma[®]

Chameleon effect with multi-tone



Sparkliris[®]

Pearlescent and sparkling effect

Product List



Graphene Knitting fabric



Graphene printing fabric



Graphene membrane laminated fabric

Graphene Innovating Your Life

Graphene Knitting/Weaving Fabric

- Major function on thermal regulation, antiabrasion.
- PET, PA and Rayon fiber are both available from UC customers.
- The optimal graphene dosage would be around 0.1 - 0.5%

UC Bacon Co. Ltd.



Graphene Printing Fabric

- Major function on thermal regulation, antistatic, and anti-abrasion.
- It would be suitable for all kind of fabrics.
- The optimal coverage for graphene pattern would be around 30-40%.



Graphene Membrane Laminating Fabric

- Major function on thermal regulation, anti-abrasion.
- Hydrophilic PU, microporous PU and thermal plastic PU are all available.





Danny Wu

E-mail : Dannywu@ucbacon.com.tw Tel : 886-3-3552829 Website : www.ucbacon.com.tw

UC BACON

~Let Graphene Innovating Your Life~