

TEST REPORT

No. : SZIN2106007854PS

Date : Jul 05, 2021

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scan to see the report



SZIN2106007854PS

CUSTOMER NAME: DURIO PPE SDN. BHD.
ADDRESS: 16, JALAN TEMENGGONG, 81100 JOHOR BAHRU, JOHOR,
MALAYSIA

Sample Name : Durio Melt Blown Non-Woven Fabric

Above information and sample(s) was/were submitted and confirmed by the client. SGS, however, assumes no responsibility to verify the accuracy, adequacy and completeness of the sample information provided by client.

SGS Ref. No. : CA66562; GZIN2106035964MR
Date of Receipt : Jun 24, 2021
Testing Start Date : Jun 24, 2021
Testing End Date : Jul 05, 2021
Test result(s) : For further details, please refer to the following page(s)
(Unless otherwise stated the results shown in this test report refer only to the sample(s) tested)

Signed for
SGS-CSTC Standards Technical
Services Co., Ltd. Shenzhen Branch
Testing Center

James Zheng
Authorized signatory



SGS-CSTC Standards Technical Services Co., Ltd.
Shenzhen Branch Testing Center - Materials Laboratory

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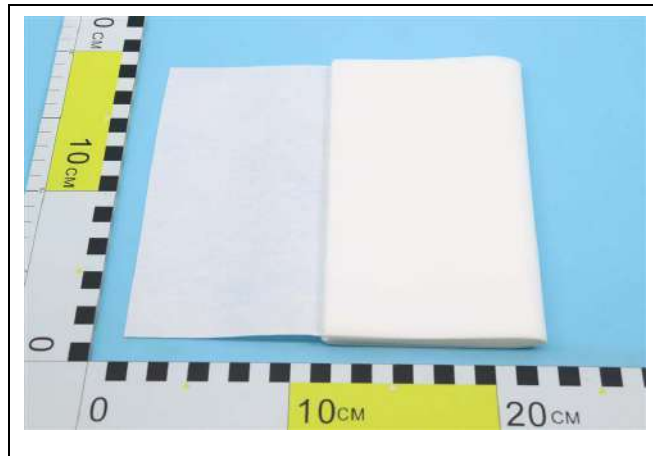
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Summary of Results:

No.	Test Item	Test Method	Result
1	Substance Identification	SEM-EDS	The characteristic structure and elemental composition of graphene were not detected

Original Sample Photo:



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Test Item: Graphene Identification

Sample Description: Fabric

Test Method: Scanning electron microscope with energy dispersive spectrometer (SEM/EDS)

Test Result:

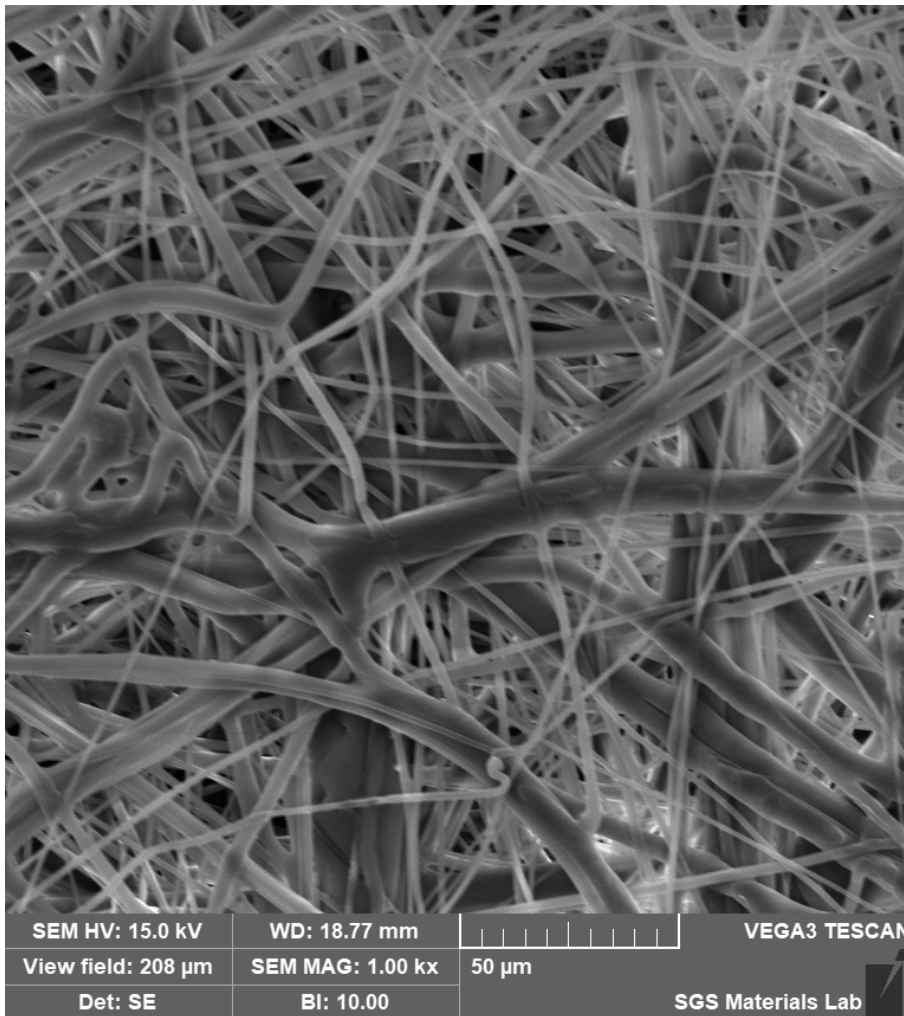


Fig.1 SEM image of the original Sample



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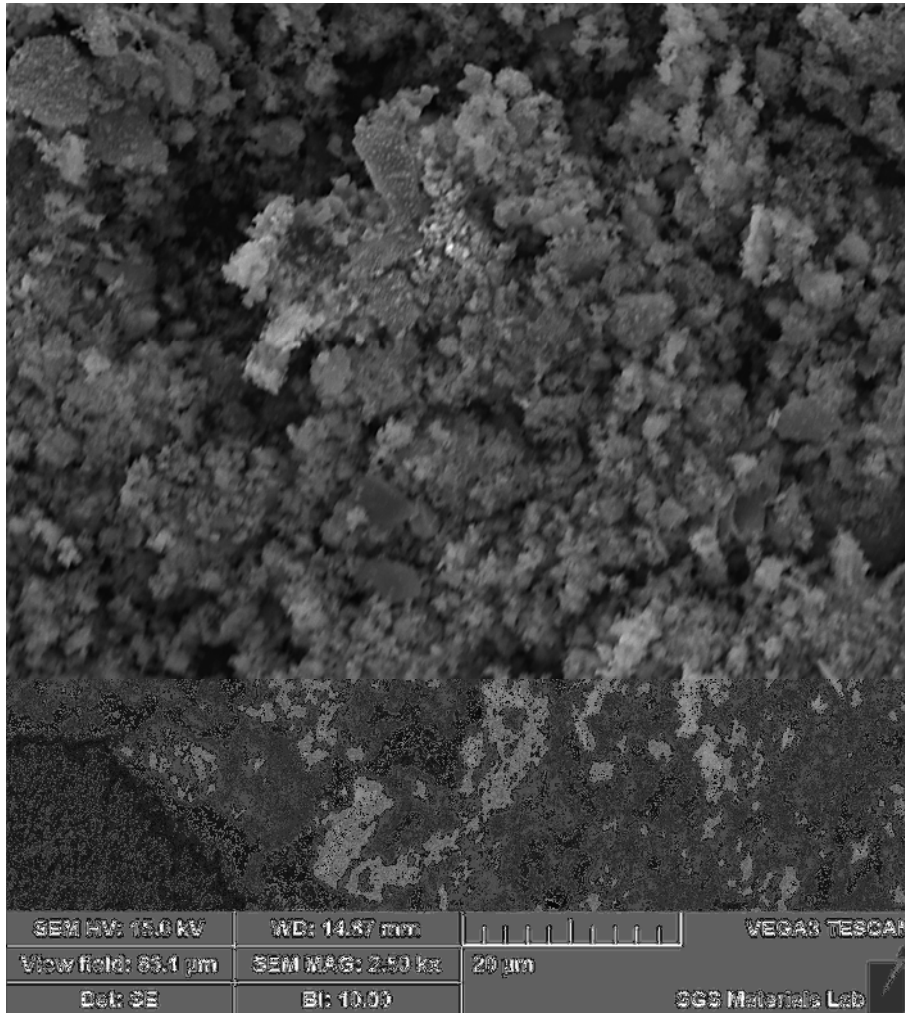


Fig.2 SEM image of the calcination ash of sample (under nitrogen protection)



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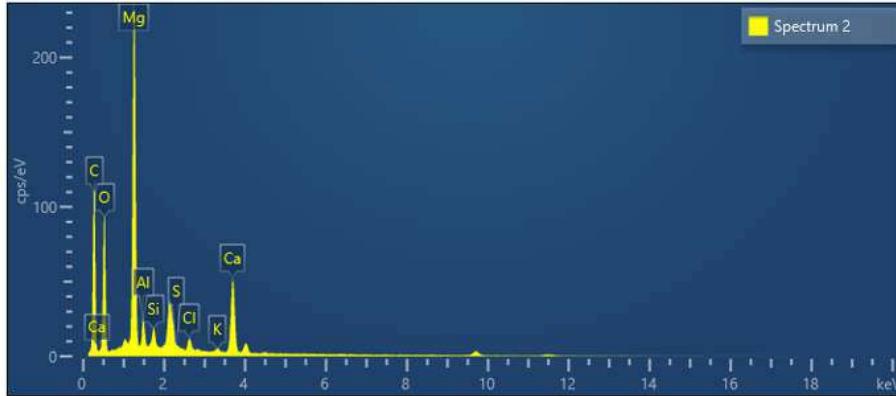
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Spectrum 2	Element	Line Type	Weight %	Weight % Sigma	Atomic %
	C	K series	45.20	0.50	57.44
	O	K series	30.38	0.37	28.98
	Mg	K series	15.50	0.17	9.73
	Al	K series	1.48	0.05	0.84
	Si	K series	0.81	0.04	0.44
	S	K series	0.00	0.04	0.00
	Cl	K series	0.69	0.03	0.30
	K	K series	0.23	0.03	0.09
	Ca	K series	5.70	0.09	2.17
	Total		100.00		100.00

Fig.3 EDS spectra of the calcination ash of sample-spectrum1



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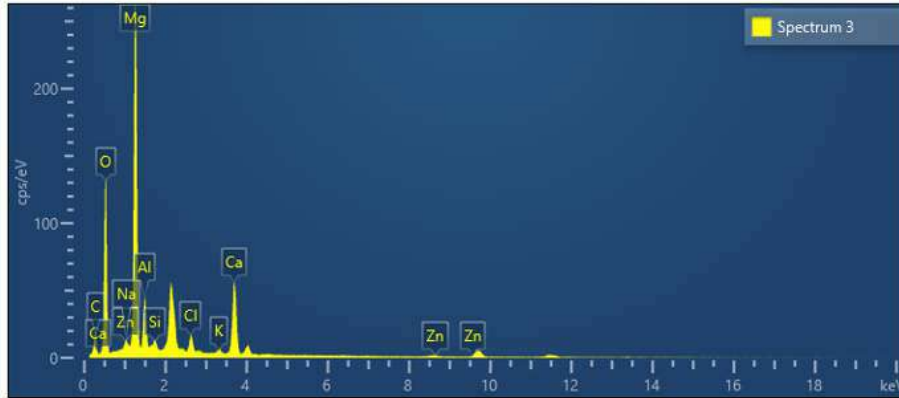
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Element	Line Type	Weight %	Weight % Sigma	Atomic %
C	K series	14.40	0.87	22.11
O	K series	42.56	0.51	49.05
Na	K series	0.45	0.10	0.36
Mg	K series	25.70	0.32	19.49
Al	K series	4.93	0.12	3.37
Si	K series	0.70	0.06	0.46
Cl	K series	1.55	0.06	0.80
K	K series	0.43	0.05	0.20
Ca	K series	8.63	0.14	3.97
Zn	K series	0.66	0.16	0.19
Total		100.00		100.00

Fig.4 EDS spectra of the calcination ash of sample-spectrum2



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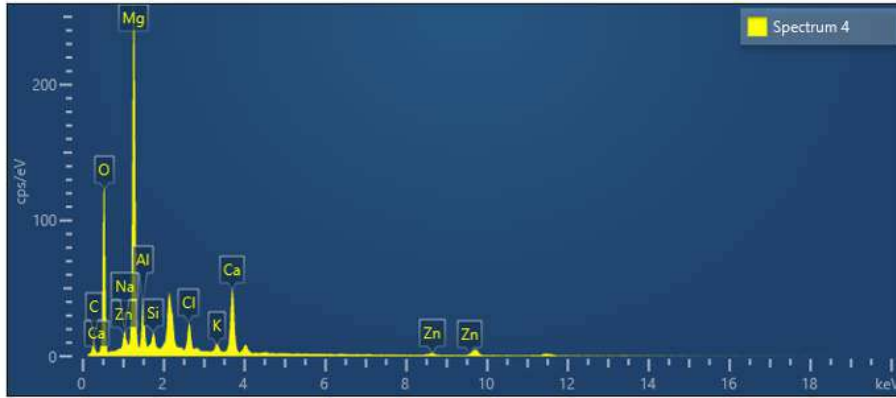
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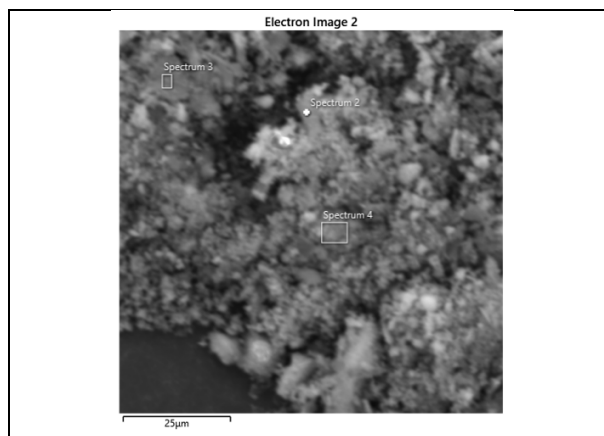
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Spectrum 4 Element	Line Type	Weight %	Weight % Sigma	Atomic %
C	K series	13.87	0.82	21.60
O	K series	41.20	0.48	48.15
Na	K series	0.89	0.11	0.72
Mg	K series	25.82	0.30	19.86
Al	K series	4.45	0.11	3.08
Si	K series	1.22	0.07	0.81
Cl	K series	2.52	0.07	1.33
K	K series	0.90	0.05	0.43
Ca	K series	7.77	0.13	3.63
Zn	K series	1.37	0.17	0.39
Total		100.00		100.00

Fig.5 EDS spectra of the calcination ash of sample-spectrum3

Test photo:



Note: SEM-EDS is qualitative and semi-quantitative test, the result is for reference only.



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Conclusion:

As per test specified above, the calcination ash of sample (under nitrogen protection) showed a granular morphology, and its elemental composition includes carbon, oxygen and calcium. The characteristic structure and elemental composition of graphene were not found.

Note:

1. According to the related description in ISO/TS 80004-13:2017 and GB/T 30544.13-2018, the graphene layers can be generally referred to the 2D materials consisting of honeycomb-like carbon sheets with a stacking number less than ten.
2. Effected by the particle distribution, processing conditions and stocking conditions, graphene layers might aggregate into graphite flakes with a stacking number more than ten. The poor-reduced and poor-exfoliated reduced oxidized graphene oxide (rGO) might not exhibit the characteristic structure and elemental composition of graphene.

Equipment Information:

Equipment	Model	Equipment No.	Calibration date	Next Calibration date
SEM/EDS	VEGA3 (SEM)/ XMX1010 (EDS)	GZMR-PL-E309	2021-04-21	2022-04-20

Appendix information:

The test method was carried out by SGS-CSTC Standards Technical Services Co., Ltd. Guangzhou Branch.

***** End of report*****



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