

TEST REPORT

No. : GZAT1911019255NM

Date : Dec 02, 2019

Page: 1 of 19

CUSTOMER NAME: DONGGUAN GUANGMAI ELECTRONIC TECHNOLOGY CO., LTD
ADDRESS: 16B, INTERNATIONAL FINANCE IT RESEARCH AND DEVELOPMENT CENTER, NO.5 KEJI
TEN ROAD, SONGSHAN LAKE HIGH-TECH INDUSTRIAL DEVELOPMENT ZONE, DONGGUAN, CHINA

The following sample's information(s) was/ were submitted and identified on behalf of the client as:

Sample Name : cellular silicone foam
Part No. : GK-260
Other Information : 1. Colour: black
2. Thickness: 3mm
SGS Ref No. : GZIN1911063240MR
Date of Receipt : Nov 22, 2019
Testing Start Date : Nov 22, 2019
Testing End Date : Nov 29, 2019
Test Result(s) : For further details, please refer to the following page(s)

Signed for and on behalf of
SGS-CSTC Standards Technical
Services Co., Ltd. GZ Branch Testing
Center

Denise Xin
Technical Manager



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. 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. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

TEST REPORT

No. : GZAT1911019255NM

Date : Dec 02, 2019

Page: 2 of 19

Report Declaration:

The test samples were provided and confirmed by the customer in this report, the results contained in this test report do not relate to other samples of the same product. The manufacturer should ensure that all products manufactured are in conformity with the product sample in this report.

In the territory of the People's Republic of China, the test report shall only be used for client scientific research, teaching, internal quality control, product research and development, etc... and just for client internal reference.

Manufacture Declaration or Comment:

None

Summary of Result(s):

No.	Test Item	Test Method	Conclusion
1.	Compression Deflection	ASTM D1056-14 Section 17~23	N/A
2.	Compression Set	ASTM D1056-14 Section 50-56	N/A
3.	Compressive Strength	Provided by client	N/A
4.	Density	ASTM D1056-14 Section 62~68	N/A
5.	Low-Temperature Flex Test	ASTM D1056-14 Section 57-61	N/A
6.	Tensile Test	With reference to ASTM D412-16 Method A and client's requirement	N/A
7.	Water Absorption	Provided by client	N/A

Note:
 Pass: Meet the requirements
 Fail: Does not meet the requirements
 N/A: Not apply to the judgment



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. 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. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

SGS-CSTC Testing Technology Services Co., Ltd.
 Guangzhou Branch Testing Center Automotive Services

198 Kezhu Road, Sciotech Park Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86-20) 82155555 f (86-20) 82075198 www.sgsgroup.com.cn
 中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 f (86-20) 82075198 e sgs.china@sgs.com

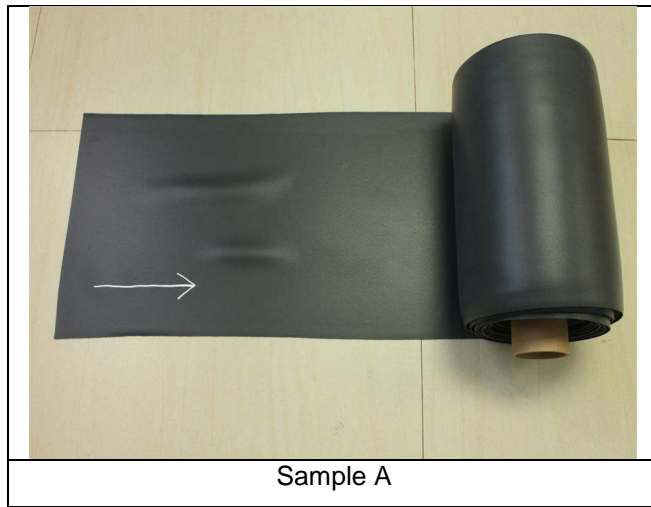
TEST REPORT

No. : GZAT1911019255NM

Date : Dec 02, 2019

Page: 3 of 19

Original Sample Photo:



Sample A



SGS-CSTC 检测技术有限公司 广州分公司
Guangzhou Branch Testing Center Automotive Services

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. 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. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

198 Kezhu Road, Sciotech Park Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86-20) 82155555 f (86-20) 82075198 www.sgs.com.cn

中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 f (86-20) 82075198 e sgs.china@sgs.com

TEST REPORT

No. : GZAT1911019255NM

Date : Dec 02, 2019

Page: 4 of 19

1. Test Item: Compression Deflection

Sample Description: Foam

Test Method: ASTM D1056-14 Section 17~23

Test Condition:

Specimen diameter: 28.85 mm

Specimen thickness: 9.11 mm (3 layers plied up)

Testing speed: 12.7 mm/min

Compression rate: 25 %

Lab Environment Condition: 23 ± 2 °C, 50 ± 5 % RH

Test Result:

Test Item	Test Result
Compression Deflection	1.79psi

Note: Test specimens were cut from the sample.



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. 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. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

SGS-CSTC 检测技术有限公司广州分公司
Guangzhou Branch Testing Center Automotive Services

198 Kezhu Road, Sciotech Park Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86-20) 82155555 f (86-20) 82075198 www.sgsgroup.com.cn
中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 f (86-20) 82075198 e sgs.china@sgs.com

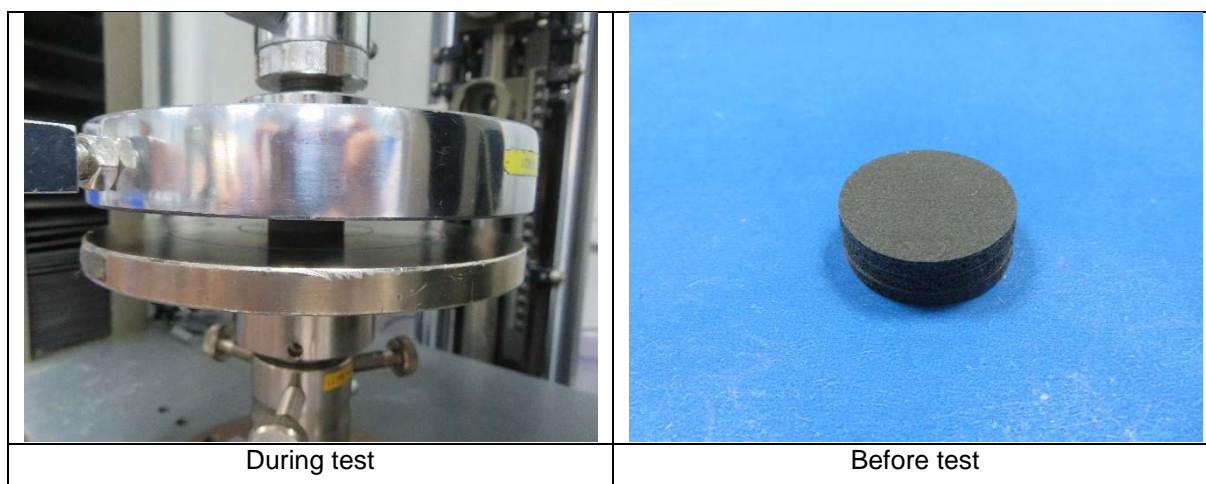
TEST REPORT

No. : GZAT1911019255NM

Date : Dec 02, 2019

Page: 5 of 19

Test Photo:



During test

Before test

Equipment Information:

Equipment	Model	Equipment No.	Calibration date	Next Calibration date
Universal Testing Machine	Z010	GZMR-PL-E038	2019-09-03	2020-09-02



SGS-CSTC Testing Center Automotive Services Co., Ltd.
Guangzhou Branch Testing Center Automotive Services

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. 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. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

198 Kezhu Road, Sciotech Park Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86-20) 82155555 f (86-20) 82075198 www.sgsgroup.com.cn
中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 f (86-20) 82075198 e sgs.china@sgs.com

TEST REPORT

No. : GZAT1911019255NM

Date : Dec 02, 2019

Page: 6 of 19

2. Test Item: Compression Set

Sample Description: Foam

Test Method: ASTM D1056-14 Section 50~56

Test Condition:

Specimen diameter: 29mm

Specimen thickness: 9.24mm (3 layers plied up)

Test condition: 100°C, 22h

Compression rate: 50%

Recovery condition: (23±2)°C,(50±5)%RH,30min

Lab Environment Condition: (23±2)°C,(50±5)%RH

Test Result:

Test Item	Test Result
Compression Set	1%

Note: Test specimens were cut from the sample.



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. 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. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

SGS-CSTC Testing Center Automotive Services Co., Ltd.
Guangzhou Branch Testing Center Automotive Services

198 Kezhu Road, Scienteck Park Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86-20) 82155555 f (86-20) 82075198 www.sgsgroup.com.cn
中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 f (86-20) 82075198 e sgs.china@sgs.com

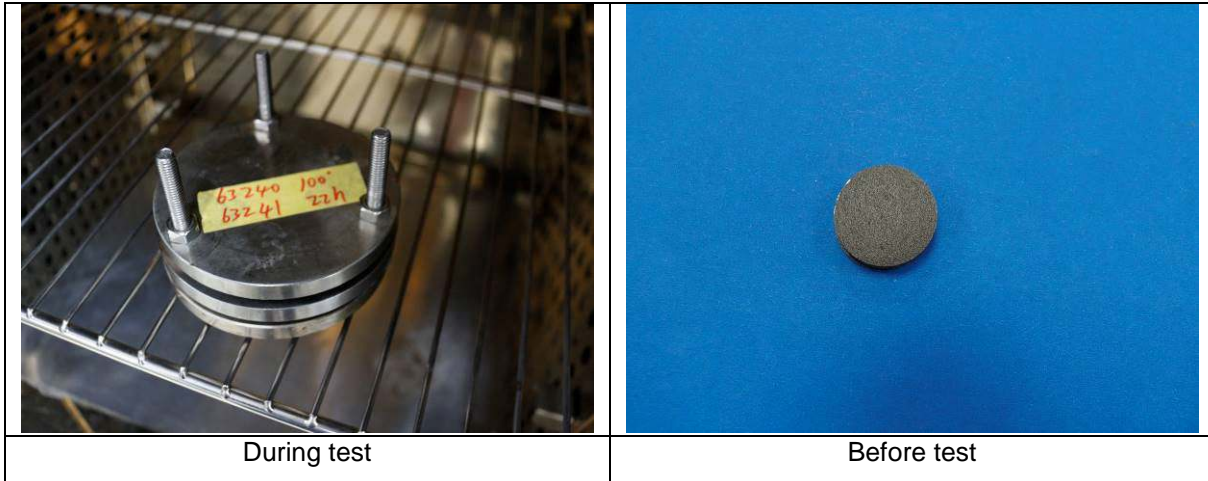
TEST REPORT

No. : GZAT1911019255NM

Date : Dec 02, 2019

Page: 7 of 19

Test Photo:



Equipment Information:

Equipment	Model	Equipment No.	Calibration date	Next Calibration date
Oven	UF260plus	GZMR-PL-E138	2019-04-17	2020-04-16
Thickness Gauge	TG-3130-H	GZMR-PL-E141	2019-02-18	2020-02-17



SGS-CSTC Testing Center Automotive Services Co., Ltd.
Guangzhou Branch Testing Center Automotive Services

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. 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. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

198 Kezhu Road, Sciotech Park Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86-20) 82155555 f (86-20) 82075198 www.sgsgroup.com.cn
中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 f (86-20) 82075198 e sgs.china@sgs.com

TEST REPORT

No. : GZAT1911019255NM

Date : Dec 02, 2019

Page: 8 of 19

3. Test Item: Compressive Strength

Sample Description: Foam

Test Method: Provided by client, measure the original thickness with 1N, and every 10% compression retain for 1min.

Test Condition:

Specimen: 50mm×50mm×15.1mm (5 layers plied up)

Testing speed: 1mm/min

Lab Environment Condition: (23±2)℃, (50±5)%RH

Test Result:

Test item	Test Result
10% strain Compressive Stress, MPa	0.0063
10% strain Compressive Stress, psi	0.914
20% strain Compressive Stress, MPa	0.0091
20% strain Compressive Stress, psi	1.32
30% strain Compressive Stress, MPa	0.012
30% strain Compressive Stress, psi	1.74
40% strain Compressive Stress, MPa	0.016
40% strain Compressive Stress, psi	2.32
50% strain Compressive Stress, MPa	0.023
50% strain Compressive Stress, psi	3.33
60% strain Compressive Stress, MPa	0.037
60% strain Compressive Stress, psi	5.37
70% strain Compressive Stress, MPa	0.078
70% strain Compressive Stress, psi	11.3



SGS-CSTC Testing Center Automotive Services, Guangzhou Branch
Guangzhou Branch Testing Center Automotive Services

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. 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. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

198 Kezhu Road, Sciotech Park Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86-20) 82155555 f (86-20) 82075198 www.sgsgroup.com.cn
中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 f (86-20) 82075198 e sgs.china@sgs.com

TEST REPORT

No. : GZAT1911019255NM

Date : Dec 02, 2019

Page: 9 of 19

Instantaneous Force at interval of 1% Compression rate:

Compression rate, %	#1		#2		#3	
	MPa	psi	MPa	psi	MPa	psi
1	0.0014	0.208	0.0013	0.188	0.0014	0.197
2	0.0026	0.370	0.0025	0.360	0.0025	0.362
3	0.0036	0.519	0.0037	0.531	0.0035	0.513
4	0.0043	0.625	0.0046	0.672	0.0043	0.627
5	0.0048	0.694	0.0054	0.785	0.0048	0.702
6	0.0051	0.741	0.0059	0.859	0.0053	0.761
7	0.0054	0.780	0.0062	0.900	0.0056	0.810
8	0.0056	0.811	0.0065	0.937	0.0059	0.852
9	0.0058	0.845	0.0067	0.973	0.0061	0.887
10	0.0060	0.876	0.0069	0.995	0.0064	0.922
11	0.0062	0.905	0.0072	1.04	0.0065	0.948
12	0.0065	0.943	0.0075	1.08	0.0068	0.985
13	0.0068	0.979	0.0077	1.11	0.0070	1.02
14	0.0070	1.02	0.0079	1.15	0.0073	1.06
15	0.0073	1.06	0.0082	1.19	0.0075	1.09
16	0.0076	1.10	0.0084	1.22	0.0078	1.14
17	0.0079	1.15	0.0087	1.27	0.0082	1.18
18	0.0083	1.20	0.0090	1.31	0.0085	1.23
19	0.0086	1.25	0.0093	1.35	0.0088	1.28
20	0.0090	1.30	0.0097	1.40	0.0091	1.32
21	0.0093	1.35	0.0099	1.44	0.0094	1.37



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. 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. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

TEST REPORT

No. : GZAT1911019255NM

Date : Dec 02, 2019

Page: 10 of 19

Compression rate, %	#1		#2		#3	
	MPa	psi	MPa	psi	MPa	psi
22	0.0097	1.40	0.010	1.49	0.0098	1.42
23	0.010	1.46	0.011	1.54	0.010	1.48
24	0.010	1.51	0.011	1.59	0.011	1.53
25	0.011	1.56	0.011	1.64	0.011	1.58
26	0.011	1.61	0.012	1.69	0.011	1.63
27	0.011	1.66	0.012	1.74	0.012	1.68
28	0.012	1.71	0.012	1.78	0.012	1.72
29	0.012	1.75	0.013	1.83	0.012	1.77
30	0.012	1.77	0.013	1.88	0.013	1.82
31	0.013	1.83	0.013	1.92	0.013	1.85
32	0.013	1.89	0.014	1.98	0.013	1.91
33	0.013	1.94	0.014	2.03	0.014	1.96
34	0.014	1.99	0.014	2.09	0.014	2.01
35	0.014	2.05	0.015	2.15	0.014	2.07
36	0.015	2.10	0.015	2.21	0.015	2.13
37	0.015	2.16	0.016	2.27	0.015	2.19
38	0.015	2.22	0.016	2.34	0.015	2.24
39	0.016	2.29	0.017	2.41	0.016	2.31
40	0.016	2.31	0.017	2.48	0.016	2.34
41	0.017	2.41	0.018	2.54	0.017	2.43
42	0.017	2.50	0.018	2.63	0.017	2.52



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. 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. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

SGS-CSTC 检测技术有限公司
Guangzhou Branch Testing Center Automotive Services

198 Kezhu Road, Sciotech Park Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86-20) 82155555 f (86-20) 82075198 www.sgsgroup.com.cn
中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 f (86-20) 82075198 e sgs.china@sgs.com

TEST REPORT

No. : GZAT1911019255NM

Date : Dec 02, 2019

Page: 11 of 19

Compression rate, %	#1		#2		#3	
	MPa	psi	MPa	psi	MPa	psi
43	0.018	2.58	0.019	2.72	0.018	2.60
44	0.018	2.67	0.019	2.82	0.019	2.69
45	0.019	2.76	0.020	2.92	0.019	2.79
46	0.020	2.87	0.021	3.02	0.020	2.89
47	0.021	2.98	0.022	3.14	0.021	2.99
48	0.021	3.09	0.022	3.26	0.021	3.11
49	0.022	3.21	0.023	3.39	0.022	3.23
50	0.023	3.35	0.024	3.53	0.023	3.29
51	0.024	3.46	0.025	3.65	0.024	3.47
52	0.025	3.63	0.026	3.83	0.025	3.64
53	0.026	3.80	0.028	4.01	0.026	3.82
54	0.027	3.98	0.029	4.21	0.028	4.00
55	0.029	4.19	0.031	4.42	0.029	4.20
56	0.030	4.41	0.032	4.65	0.031	4.43
57	0.032	4.65	0.034	4.90	0.032	4.66
58	0.034	4.91	0.036	5.17	0.034	4.92
59	0.036	5.20	0.038	5.48	0.036	5.20
60	0.038	5.51	0.040	5.80	0.038	5.52
61	0.040	5.81	0.042	6.12	0.040	5.81
62	0.043	6.23	0.045	6.55	0.043	6.23
63	0.046	6.68	0.048	7.01	0.046	6.67

Compression rate, %	#1		#2		#3	
	MPa	psi	MPa	psi	MPa	psi
64	0.049	7.16	0.052	7.52	0.049	7.15
65	0.053	7.71	0.056	8.09	0.053	7.69
66	0.057	8.33	0.060	8.73	0.057	8.29
67	0.062	9.03	0.065	9.45	0.062	8.98
68	0.068	9.83	0.071	10.3	0.067	9.76
69	0.074	10.8	0.077	11.2	0.074	10.7
70	0.081	11.8	0.085	12.3	0.081	11.7

Note: The surface without plastic film was faced to the loading.



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. 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. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

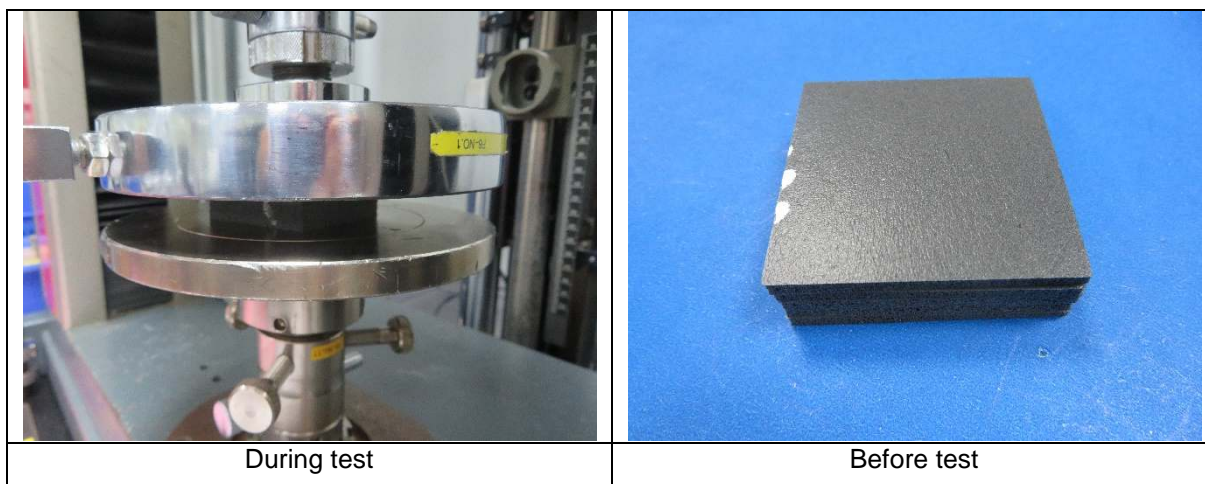
TEST REPORT

No. : GZAT1911019255NM

Date : Dec 02, 2019

Page: 12 of 19

Test Photo:



Equipment Information:

Equipment	Model	Equipment No.	Calibration date	Next Calibration date
Universal Testing Machine	Z010	GZMR-PL-E038	2019-09-03	2020-09-02



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. 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. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

TEST REPORT

No. : GZAT1911019255NM

Date : Dec 02, 2019

Page: 13 of 19

4. Test Item: Density

Sample Description: Foam

Test Method: ASTM D1056-14 Section 62~68

Test Condition:

Specimen: 100mm × 100mm × 3.1mm

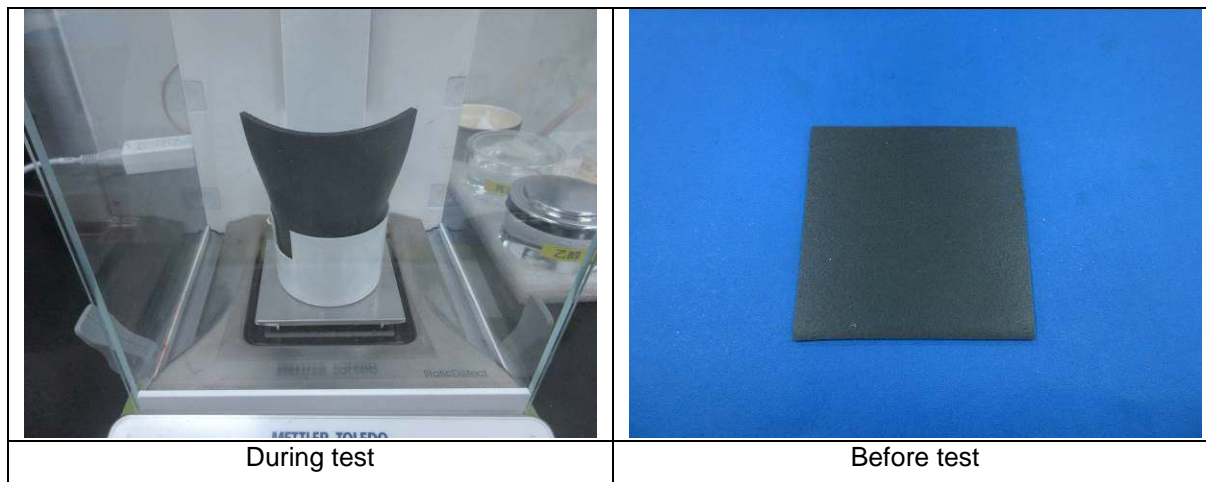
Lab Environmental Condition: 23 ± 2 °C, 50 ± 5 % RH

Test Result:

Test Item	Test Result
Density	14.6lb/ft ³

Note: Test specimens were cut from the sample.

Test Photo:



Equipment Information:

Equipment	Model	Equipment No.	Calibration date	Next Calibration date
Thickness Gauge	TG-3130-H	GZMR-PL-E141	2019-02-18	2020-02-17
Digital Vernier Caliper	0~200mm/0.01 mm	GZMR-PL-E041-17	2019-03-05	2020-03-04
Electron Balance	XPE204	GZMR-PL-E004-06	2019-09-20	2020-09-19



SGS-CSTC Testing Services Co., Ltd.
Guangzhou Branch Testing Center Automotive Services

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. 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. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

198 Kezhu Road, Sciotech Park Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86-20) 82155555 f (86-20) 82075198 www.sgs.com.cn
中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 f (86-20) 82075198 e sgs.china@sgs.com

TEST REPORT

No. : GZAT1911019255NM

Date : Dec 02, 2019

Page: 14 of 19

5. Test Item: Low-temperature Flex Test

Sample Description: Foam

Test Method: ASTM D1056-14 Section 57~61

Test Condition:

Specimen: 152mm×50mm×3.0mm

Condition: -55°C, 5h

Mandrel diameter: 12mm

Bend around angle: 180°

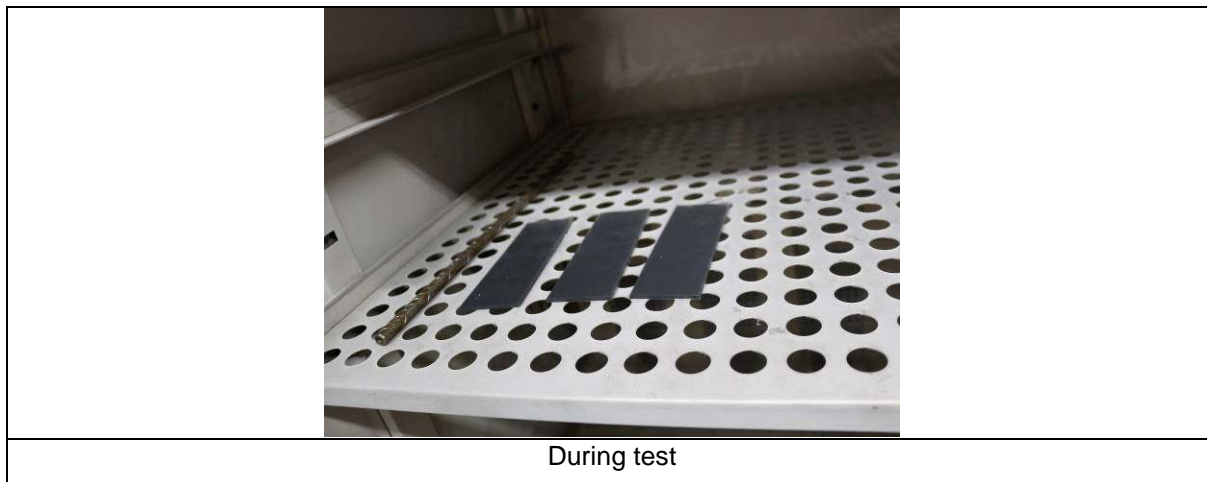
Lab Environmental Condition:(23±2)°C,(50±5)%RH

Test Result:

Test Item	Test Result
Low-temperature Flex Test	No signs of cracking

Note: Test specimens were cut from the sample.

Test Photo:



SGS-CSTC Inspection & Testing Services Co., Ltd.
Guangzhou Branch Testing Center Automotive Services

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. 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. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

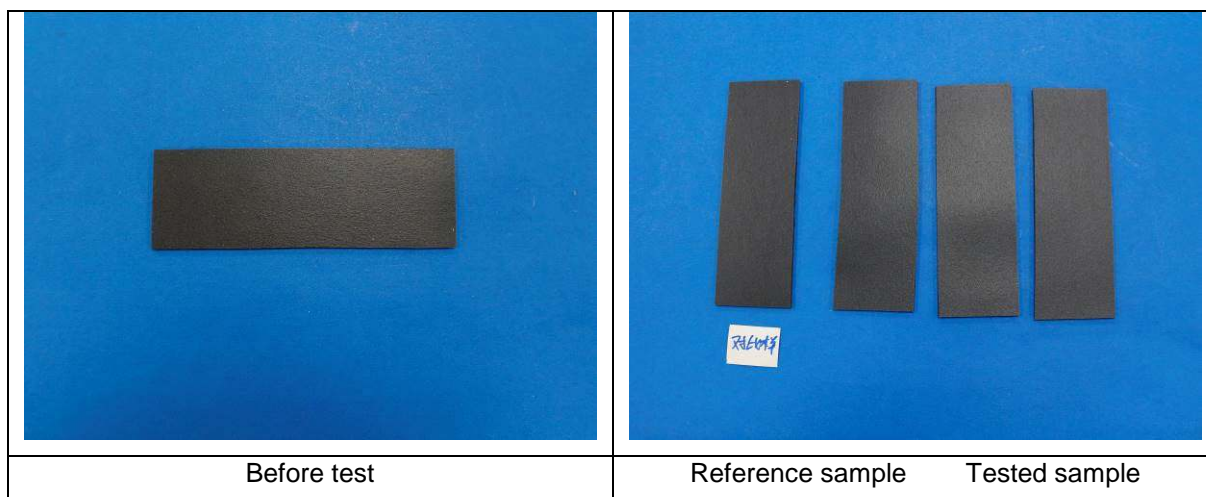
198 Kezhu Road, Sciotech Park Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86-20) 82155555 f (86-20) 82075198 www.sgs.com.cn
中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 f (86-20) 82075198 e sgs.china@sgs.com

TEST REPORT

No. : GZAT1911019255NM

Date : Dec 02, 2019

Page: 15 of 19



Equipment Information:

Equipment	Model	Equipment No.	Calibration date	Next Calibration date
High/Low Temperature Impact Chamber	MS-WSJ-360B	GZMR-PL-E137	2019-05-13	2020-05-12



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. 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. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

TEST REPORT

No. : GZAT1911019255NM

Date : Dec 02, 2019

Page: 16 of 19

6.Test Item: Tensile Test

Sample Description: Foam

Test Method: With reference to ASTM D412-16 Method A and client's requirement

Test Condition:

Specimen: Die C

Specimen thickness: 3.22mm

Testing speed: 500mm/min

Gauge length: 25mm

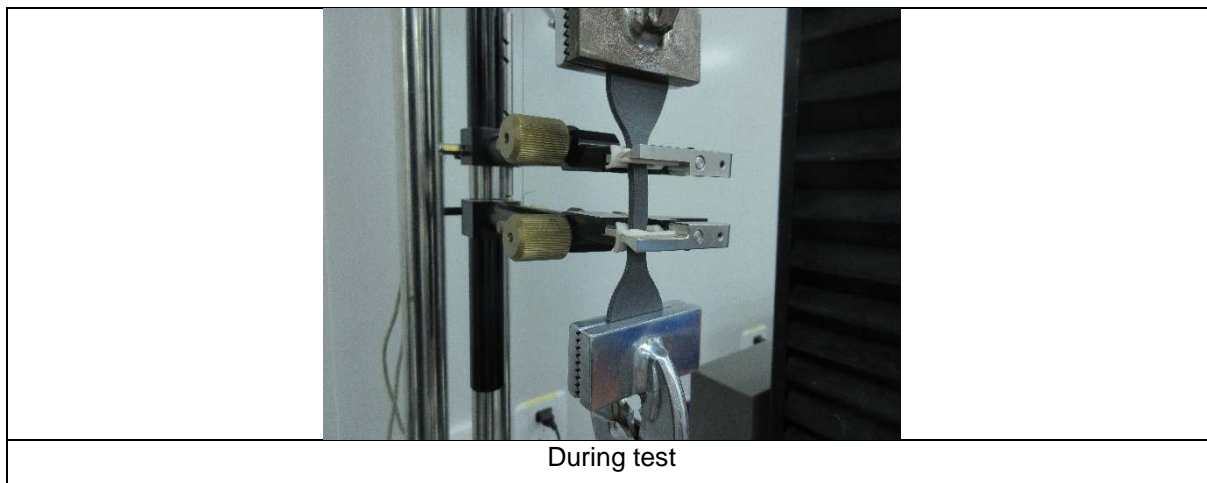
Lab Environmental Condition: (23±2)°C, (50±5)%RH

Test Result:

Test Item	Test Result
Tensile Strength	0.252 MPa
Elongation at Break	95 %

Note: Test specimens were cut from the sample.

Test Photo:



SGS-CSTC Inspection & Testing Services Co., Ltd.
Guangzhou Branch Testing Center Automotive Services

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. 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. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

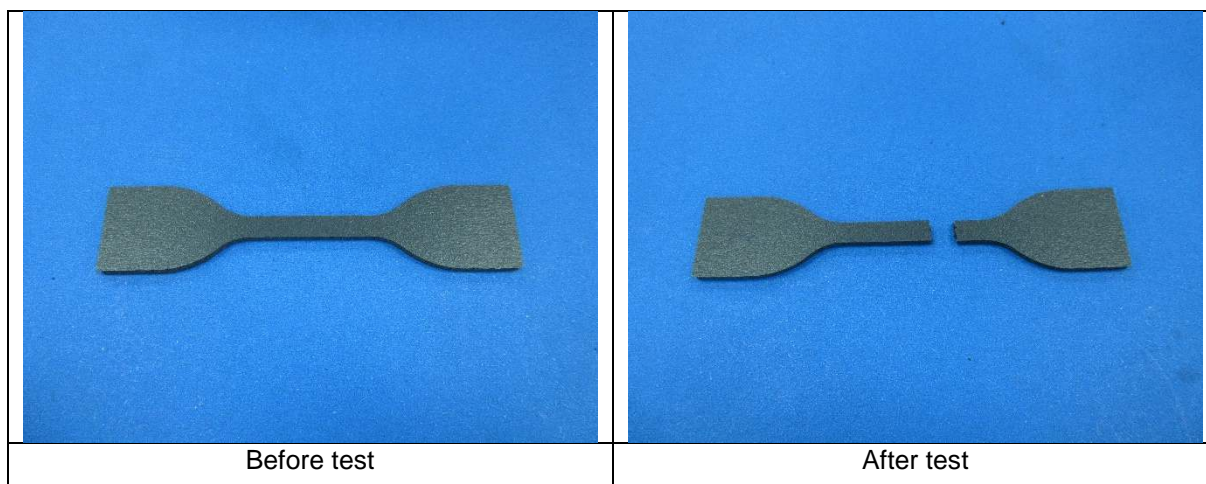
198 Kezhu Road, Sciotech Park Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86-20) 82155555 f (86-20) 82075198 www.sgs.com.cn
中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 f (86-20) 82075198 e sgs.china@sgs.com

TEST REPORT

No. : GZAT1911019255NM

Date : Dec 02, 2019

Page: 17 of 19



Equipment Information:

Equipment	Model	Equipment No.	Calibration date	Next Calibration date
Universal Testing Machine	CMT6103	GZMR-PL-E022	2019-09-04	2020-09-03



SGS-CSTC Testing Technology Services Co., Ltd.
Guangzhou Branch Testing Center Automotive Services

Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. 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. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

198 Kezhu Road, Sciotech Park Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86-20) 82155555 f (86-20) 82075198 www.sgs.com.cn
中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 f (86-20) 82075198 e sgs.china@sgs.com

TEST REPORT

No. : GZAT1911019255NM

Date : Dec 02, 2019

Page: 18 of 19

7. Test Item: Water Absorption

Sample Description: Foam

Test Method: Provided by client

Test Condition:

Specimen: 50.8mm×50.8mm×3.1mm

Immersion condition: Immerse under a 50.8mm head of water, 23±2°C, 24h

Lab Environmental Condition: 23±2°C, 50±5%RH

Test Result:

Test Item	Test Result
Water Absorption	3.87% (See note 1)

Note:

1. Water absorption, $\% = (\text{Mass after immersion} - \text{Mass before immersion}) / \text{Mass before immersion} \times 100$
2. Test specimens were cut from the sample.



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. 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. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

SGS-CSTC 检测技术有限公司
Guangzhou Branch Testing Center Automotive Services

198 Kezhu Road, Sciotech Park Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86-20) 82155555 f (86-20) 82075198 www.sgsgroup.com.cn
中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 f (86-20) 82075198 e sgs.china@sgs.com

TEST REPORT

No. : GZAT1911019255NM

Date : Dec 02, 2019

Page: 19 of 19

Test Photo:



Equipment Information:

Equipment	Model	Equipment No.	Calibration date	Next Calibration date
Electron Balance	XPE204	GZMR-PL-E004-06	2019-09-20	2020-09-19

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



Unless otherwise agreed in writing, this document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <http://www.sgs.com/en/Terms-and-Conditions.aspx> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <http://www.sgs.com/en/Terms-and-Conditions/Terms-e-Documents.aspx>. 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. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.

Attention: To check the authenticity of testing / inspection report & certificate, please contact us at telephone: (86-755) 8307 1443, or email: CN.Doccheck@sgs.com

SGS-CSTC 检测技术有限公司
Inspection & Testing Services
Guangzhou Branch

198 Kezhu Road, Sciotech Park Guangzhou Economic & Technology Development District, Guangzhou, China 510663 t (86-20) 82155555 f (86-20) 82075198 www.sgs.com.cn
中国·广州·经济技术开发区科学城科珠路198号 邮编: 510663 t (86-20) 82155555 f (86-20) 82075198 e sgs.china@sgs.com