



国家化学建筑材料测试中心

NATIONAL
TEST CENTER
OF POLYMER AND
BUILDING MATERIALS



230002349849



中国认可
国际互认
检测
TESTING
CNAS L1049

National Test Center of Polymer & Building Materials

Address: No. 14, Beisanhuandonglu, Chaoyang District, Beijing, China Post Code: 100013
Tel: +86(0)1064208747, +86(0)1064200694, +86(0)1064224642, +86(0)1059202479
Fax: +86(0)1059202784, +86(0)1084290301 Web site: www.plasticstest.net

No.2024(X) 11057

CUSTOMER: Haoyang Environmental Co., Ltd

SAMPLES FOR TESTING

Name: HDPE Textured Geomembrane

Manufacturer: Haoyang Environmental Co., Ltd

Appearance: Black sheet

Thickness: 2.0 mm

DATE OF RECEIPT: 2024-10-30

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THIS REPORT COMPRISES 4 PAGES.



DIRECTOR: 武鹏

CHECK: 毛安洪



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TESTING RESULTS

No. 2024(X) 11057

No.	Test Items	Requirements	Results	Test Methods	
1	Thickness, mm	2.0±5%	2.00	ASTM D5994/ D5994M-10 (2021)	
2	Density, g/cm ³	0.941~0.965	0.945	ISO 1183-1:2019	
3	Carbon black content, %	2.0~3.0	2.2	ASTM D4218-20	
4	Asperity height (double textured surface), mm	≥0.40	0.58 0.48	ASTM D7466/ D7466M-10 (2015) ^{ε1}	
5	Tensile yield strength, kN/mm	transversal	≥29	33.9	ASTM D6693/ D6693M-20
		longitudinal	≥29	33.5	ASTM D6693/ D6693M-20
6	Tensile yield strength, kN/mm	transversal	≥16	35.2	ISO 527-3:2018
		longitudinal	≥16	36.3	ISO 527-3:2018
7	Tensile break strength, kN/mm	transversal	≥21	61.3	ASTM D6693/ D6693M-20
		longitudinal	≥21	60.6	ASTM D6693/ D6693M-20
8	Tensile break strength, kN/mm	transversal	≥26	61.1	ISO 527-3:2018
		longitudinal	≥26	63.3	ISO 527-3:2018

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Test: 王庆庆 刘云鹏 任雪剑 刘张硕





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TESTING RESULTS

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(CONTINUED FROM THE PREVIOUS PAGE)

No.	Test Items	Requirements	Results	Test Methods	
9	Percent yield elongation, %	transversal	≥ 12	13	ASTM D6693/ D6693M-20
		longitudinal	≥ 12	13	ASTM D6693/ D6693M-20
10	Percent yield elongation, %	transversal	≥ 10	12	ISO 527-3:2018
		longitudinal	≥ 10	12	ISO 527-3:2018
11	Percent break elongation, %	transversal	≥ 100	881	ASTM D6693/ D6693M-20
		longitudinal	≥ 100	884	ASTM D6693/ D6693M-20
12	Percent break elongation, %	transversal	≥ 400	884	ISO 527-3:2018
		longitudinal	≥ 400	881	ISO 527-3:2018
13	Puncture resistance, N	≥ 534	739	ASTM D4833/ D4833M-07(2020)	
14	CBR puncture resistance, N	≥ 4000	4876	ISO 12236:2006	
15	Tear strength, N	transversal	≥ 249	298	ASTM D1004-21
		longitudinal	≥ 249	289	ASTM D1004-21

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No.	Test Items	Requirements	Results	Test Methods	
16	Tear strength , kN/mm	transversal	≥125	156	ISO 34-1:2022
		longitudinal	≥125	150	ISO 34-1:2022
17	Oxidative inductive time (200℃), min	≥100	>200	ASTM D3895-19	
18	High pressure oxidative inductive time, min	≥400	892	ASTM D5885/D5885M-20	

Note : Test items above were conducted at Tongzhou branch.

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