

GEOTEXTILE TEST RESULTS

Product: GS40-12.5'
Tracking #: 24BD04B81

Date: 02.03.24
Test #: 010324
Lot #: BD040124

Properties	Method	Unit	Value										Mean	Std.Dev
Weight	ASTM D5261	gsm	138	137	134	136	139	138	139	139	140	138	137.8	1.75
Grab tensile strength	ASTM D4632													
MD		lbs	213.8	217.8	245.4	244.5	276.8	267.3	277.3	266.6	216.5		247.34	26.20
TD		lbs	251.8	241.3	243.6	247.1	264.6	258.4	269.3	267.8	266.0		256.65	10.96
MD- Elong.		%	16.0	19.9	17.3	16.4	18.7	17.0	18.9	18.7	18.4		17.89	1.29
TD- Elong.		%	23.3	22.0	22.9	23.8	23.3	23.3	23.2	23.3	22.8		23.09	0.50
CBR test	ASTM D6241	lbs	839.0	830.3	846.2	853.9							842.36	10.08
Trapezoidal Tear	ASTM D4533													
MD		lbs	109.7	106.0	104.5	106.3	104.7	108.0	109.5				106.94	2.13
TD		lbs	91.7	93.4	101.4	101.4	92.1	92.4	97.0				95.61	4.31
Flow rate (T: 20.5 ⁰ C)	ASTM D4491	GPM/ft ²	1					2						
Thickness		mm	0.340	0.340	0.340	0.340	0.340	0.322	0.322	0.322	0.322	0.322		
Time		s	25.100	25.100	25.200	25	25.200	27.200	27.200	27.200	27.300	27.300		
Permittivity		s -1	0.112	0.112	0.112	0.112	0.112	0.101	0.101	0.101	0.101	0.101		
Flow rate		GPM/ft ²	7.235	7.235	7.207	7.207	7.207	6.677	6.677	6.677	6.652	6.652		
Permeability		cm/s	0.004	0.004	0.004	0.004	0.004	0.003	0.003	0.003	0.003	0.003		
			3					4						
Thickness		mm	0.340	0.340	0.340	0.340	0.340	0.332	0.332	0.332	0.332	0.332		
Time		s	19.200	19.300	19.300	19.300	19.200	19.700	19.700	19.700	19.700	19.600		
Permittivity		s -1	0.147	0.146	0.146	0.146	0.147	0.140	0.140	0.140	0.140	0.141	0.1249	0.0193
Flow rate		GPM/ft ²	9.459	9.410	9.410	9.410	9.459	9.219	9.219	9.219	9.219	9.266	8.14	1.24
Permeability		cm/s	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.0042	0.001
AOS	ASTM D 4751	mm	0.284										0.284	0.0061

Conclusion: YES ☒ NO ☐
Take from: TN01-TN02-TN03-TN04-TN05-TN06-TN07

KCS

TEST REPORT
PRODUCT MASS PER UNIT AREA TEST RESULTS (ASTM D5261)

Date of testing: 07.03.24

Fabric	GS40	Tracking #	24BD04B81	Times of Testing	01	Lot#	BD040124
Specifications	12.5'	Date of Prod.	02.03.24	Test #	010324		

No.	1	2	3	4	5	6	7	8	9	10	Mean	Std.Dev
Specimen size (mm ²)	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	10000	
Mass per Unit Area (gsm)	138	137	134	136	139	138	139	139	140	138	137.8	1.75119

Yes : ☐

No: ☐

Solution for Non-Compliance:

Carried out by: MTN14; Calibrated by: SMEDEC1; Calibration No: 16609

Test results reported herein do not apply to samples other than those tested.

Chief of Division:

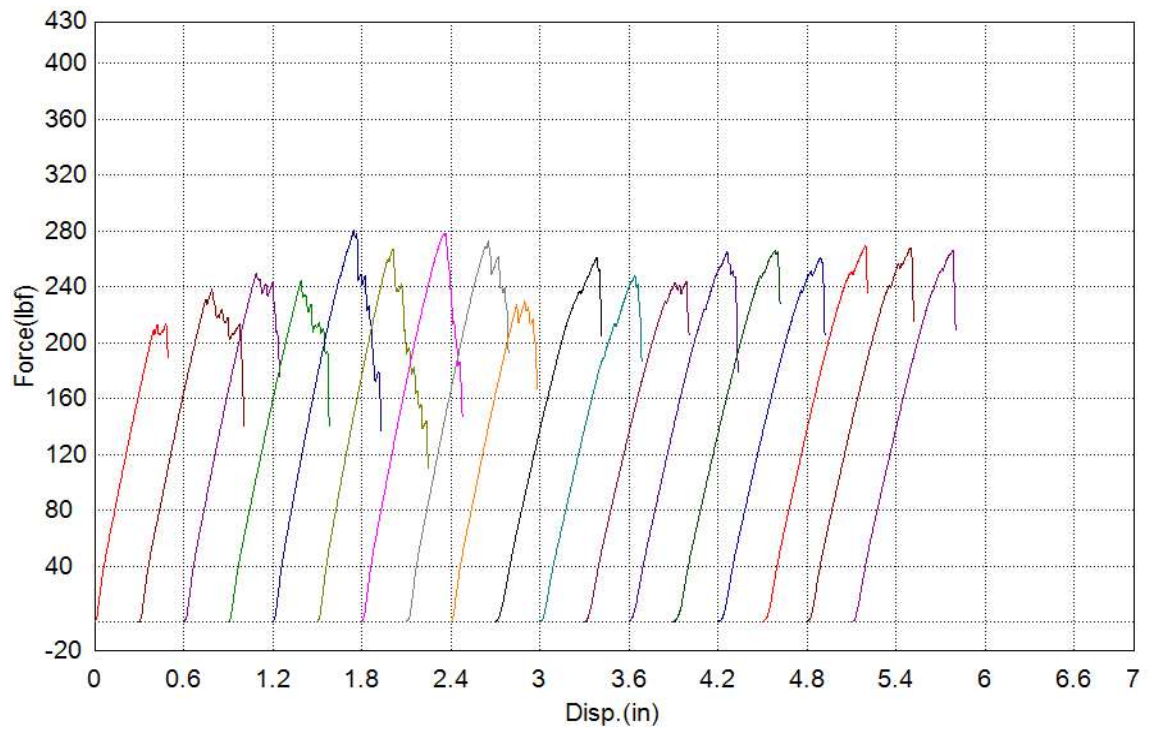
Operator

KHANG

TEST REPORT

Company	GIA LOI JSC	Product Name	GS40
Address	Binh Duong, Viet Nam	Tracking #	24BD04B81
Method File Name	ASTM D4632...lmax	Test File Name	24BD04B81.ltax
Speed	12in/min	Lot #	BD040124
Test Type	Tensile	Date of prod	02.03.24
No of Batches:	2	Test #	010324
Qty/Batch:	9	Test Date	2024/03/04
Form	TN-QT D4632-BM01/00	Report Date	2024/04/01
Times of Testing	01	Operator	KHANG

Name Parameters Unit	Break_Force Sensitivity 10 lbf	Break_Strain Sensitivity 10 %
1 _ 1	213.787	15.9838
1 _ 2	217.836	19.8507
1 _ 3	245.385	17.2500
1 _ 4	244.519	16.3836
1 _ 5	276.777	18.7166
1 _ 6	267.256	16.9842
1 _ 7	277.326	18.8502
1 _ 8	266.635	18.6504
1 _ 9	216.506	18.3839
Average	247.336	17.8948
Standard Deviation	26.2046	1.29443
Maximum	277.326	19.8507
Minimum	213.787	15.9838
2 _ 1	251.753	23.2507
2 _ 2	241.292	21.9838
2 _ 3	243.576	22.9174
2 _ 4	247.090	23.7840
2 _ 5	264.643	23.3170
2 _ 6	258.414	23.3170
2 _ 7	269.325	23.1842
2 _ 8	267.770	23.3170
2 _ 9	265.982	22.7837
Average	256.649	23.0950
Standard Deviation	10.9577	0.50224
Maximum	269.325	23.7840
Minimum	241.292	21.9838
TotalAverage	251.993	20.4949
TotalStandard De	20.0651	2.83994
TotalMaximum	277.326	23.7840
TotalMinimum	213.787	15.9838

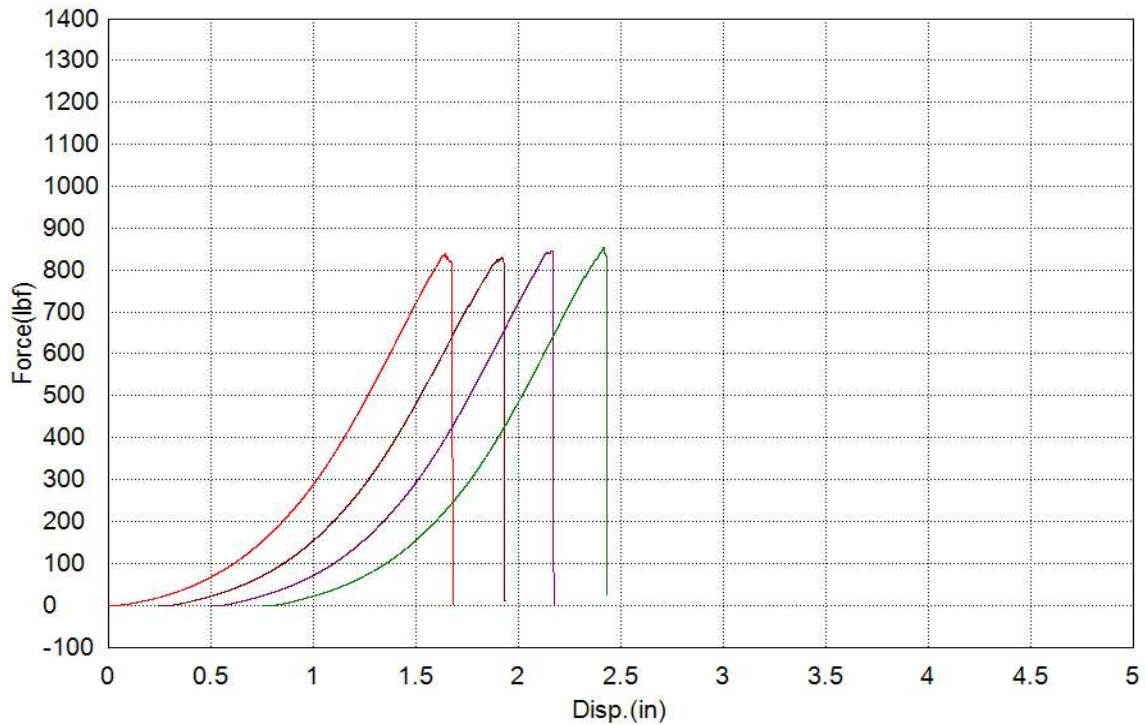


Yes: . No: Solution for Non-compliance:
Carried out by: MTN16.Calibrated by:KT3.Calibration No:KT3-0251BCO3/1
Test results reported herein do not apply to samples other than those tested.

TEST REPORT

Company	GIA LOI JSC	Product Name	GS40
Address	Binh Duong, Viet Nam	Tracking #	24BD04B81
Method File Name	ASTM D6241.lmax	Test File Name	24BD04B81_6241.ltax
Speed	1.968504in/min	Lot #	BD040124
Test Type	Compression	Date of prod:	02.03.24
No of Batches:	1	Test #	010324
Qty/Batch:	4	Test Date	2024/03/22
Form	TN-QT D6241-BM01/00	Report Date	2024/04/01
Times of Testing	01	Operator	AN

Name Parameters Unit	Max_Force Calc. at Entire Ar lbf
1 _ 1	838.998
1 _ 2	830.306
1 _ 3	846.231
1 _ 4	853.908
Average	842.361
Standard Deviation	10.0820
Maximum	853.908
Minimum	830.306

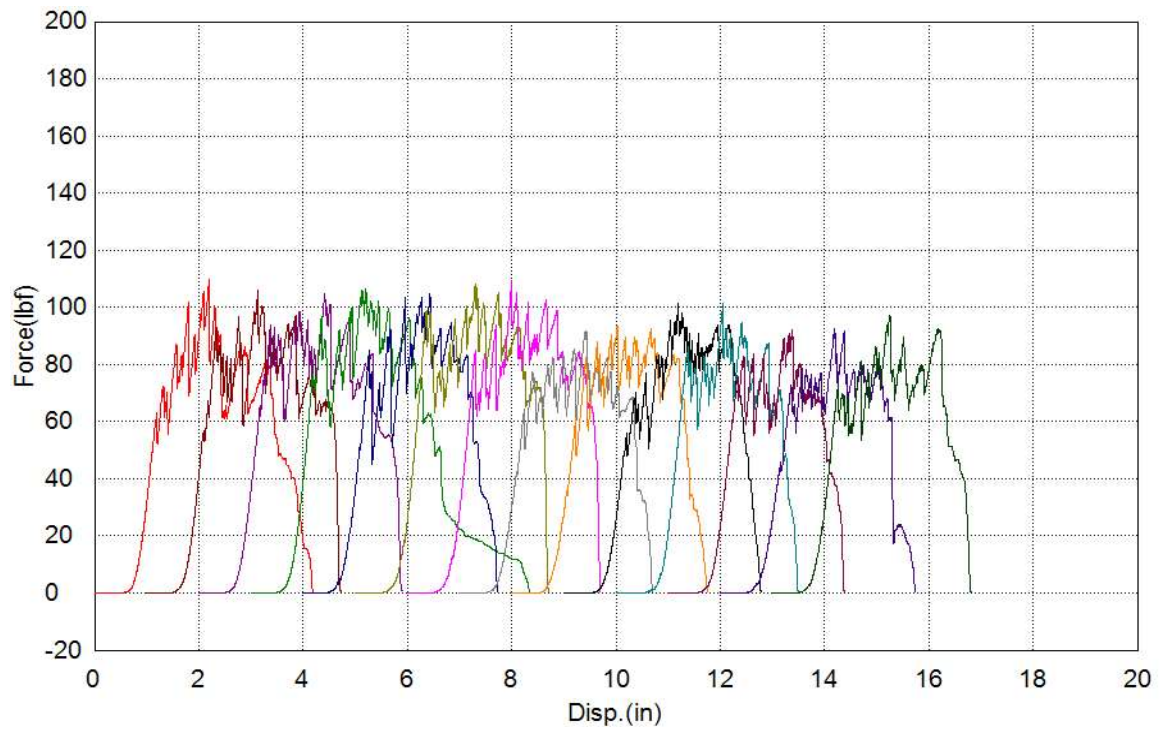


Yes: . No: Solution for Non-compliance:
Carried out by: MTN12.Calibrated by:KT3.Calibration No:KT3-0251BCO3/2
Test results reported herein do not apply to samples other than those tested.

TEST REPORT

Company	GIA LOI JSC	Product Name	GS40
Address	Binh Duong, Viet Nam	Tracking #	24BD04B81
Method File Name	ASTM D4533.lmax	Test File Name	24BD04B81_4533.ltax
Speed	11.81102in/min	Lot #	BD040124
Test Type	Tensile	Date of prod	02.03.24
No of Batches:	2	Test #	010324
Qty/Batch:	7	Test Date	2024/03/19
Form	TN-QT D4533-BM01/00	Report Date	2024/04/01
Times of Testing	01	Operator	AN

Name Parameters Unit	Max_Force Calc. at Entire Ar lbf
1 _ 1	109.651
1 _ 2	105.981
1 _ 3	104.528
1 _ 4	106.287
1 _ 5	104.663
1 _ 6	108.015
1 _ 7	109.471
Average	106.942
Standard Deviation	2.13150
Maximum	109.651
Minimum	104.528
2 _ 1	91.6976
2 _ 2	93.3882
2 _ 3	101.408
2 _ 4	101.365
2 _ 5	92.1075
2 _ 6	92.3794
2 _ 7	96.9521
Average	95.6140
Standard Deviation	4.31056
Maximum	101.408
Minimum	91.6976
TotalAverage	101.278
TotalStandard De	6.72483
TotalMaximum	109.651
TotalMinimum	91.6976



Yes: . No: Solution for Non-compliance:
Carried out by: MTN12.Calibrated by:KT3.Calibration No:KT3-0251BCO3/2
Test results reported herein do not apply to samples other than those tested.

TEST REPORT
FALLING HEAD PERMITTIVITY (ASTM D 4491, 2.85-in Upper Standpipe; 50mm opening)

Date/time of testing: 07.03.24

Fabric	GS40	Tracking#	24BD04B81	Time of Testing	01	Lot#	BD040124
Specifications	12.5'	Date of Prod.	02.03.24	Test#	010324		

a-R: 40.7 cm²

Water Temp. © 20.5

a-L: 41.7 cm²

Correction Factor: 0.989

A: 20.3 cm²

	L					R					L					R					ln(h ₀ /h ₁) 1.386	
Trial	1					2					3					4					Mean	Std.Dev
Thickness (mm)	0.340	0.340	0.340	0.340	0.340	0.322	0.322	0.322	0.322	0.322	0.340	0.340	0.340	0.340	0.340	0.332	0.332	0.332	0.332	0.332		
Time (s)	25.10	25.10	25.20	25.20	25.20	27.20	27.20	27.20	27.30	27.30	19.20	19.30	19.30	19.30	19.20	19.70	19.70	19.70	19.70	19.60		
Permittivity (s ⁻¹)	0.112	0.112	0.112	0.112	0.112	0.101	0.101	0.101	0.101	0.101	0.147	0.146	0.146	0.146	0.147	0.14	0.14	0.14	0.14	0.141		
Flow rate (GPM/ft ²)	7.24	7.24	7.21	7.21	7.21	6.68	6.68	6.68	6.65	6.65	9.46	9.41	9.41	9.41	9.46	9.22	9.22	9.22	9.22	9.27		
Permeability (cm/s)	0.004	0.004	0.004	0.004	0.004	0.003	0.003	0.003	0.003	0.003	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.004	0.0007

Yes ☐ No ☐

Solution for Non-Compliance:

Carried out by: IRM; Calibrated by: PTNGL; Calibration No: 0123
Test results reported herein do not apply to samples other than those tested.

Chief of Division

Operator

KHANG

TEST REPORT
DETERMINATION OF AOS OF GEOTEXTILE (ASTM D4751)

Date/time of Testing: 06.03.24 Date/time of submerge specimens: 05.03.24

Fabric	GS40	Tracking #	24BD04B81	Times of Testing	01	Lot#	BD040124
Specifications	12.5'	Date of Prod.	02.03.24	Test #	010324		

Sample No	Range (mm)		Minimum	Wt.F+G	Wt. F+G	Wt.Beads	%	Wt.Pan	Wt. Pan	Wt.Beads	%	Wt.F+G	Wt.F+G	Wt.Retained	% Retained
	US Std Mesh		Dia. (mm)	W/Beads			Retained/lost	W/Beads			Passing	Before	After	in Geotextile	in Geotextile
1	0.180	- 0.150	0.150	846.1	811.3	34.83	-0.06	549.2	534	15.16	30.32	811.3	811.3	0.01	0.02%
	0.355	- 0.300	0.300	861.3	811.3	49.96	0.08	534.0	534	0.04	0.08	811.3	811.3	0.00	0.00%
2	0.180	- 0.150	0.150	833.0	808.2	24.77	0.06	557.1	531.9	25.23	50.46	808.2	808.2	0.00	0.00%
	0.355	- 0.300	0.300	858.2	808.2	49.98	0.04	531.9	531.9	0.02	0.04	808.2	808.2	0.00	0.00%
3	0.180	- 0.150	0.150	845.2	813.1	32.11	-0.02	551.9	534	17.89	35.78	813.1	813.1	0.00	0.00%
	0.355	- 0.300	0.300	863.1	813.1	49.96	0.08	534.0	534	0.03	0.06	813.1	813.1	0.01	0.02%
4	0.250	- 0.212	0.212	839.8	806.7	33.06	0.08	546.4	529.5	16.94	33.88	806.7	806.7	0.00	0.00%
	0.355	- 0.300	0.300	856.3	806.7	49.59	0.02	529.9	529.5	0.41	0.82	806.7	806.7	0.00	0.00%
5	0.250	- 0.212	0.212	843.8	812.8	31.03	-0.06	386.7	367.7	18.96	37.92	812.8	812.8	0.01	0.02%
	0.355	- 0.300	0.300	862.5	812.8	49.71	-0.02	368.0	367.7	0.29	0.58	812.8	812.8	0.00	0.00%

Yes ☒ No ☐ AOS = 0.284 mm Std.Dev: 0.0061
Solution for Non-Compliance:

Carried out by: IRM; Calibrated by: PTNGL; Calibration No: 0123
Test results reported herein do not apply to samples other than those tested.

Chief of Division Operator

KHANG