



Technical Test Certificate - MIL Spec.& PIA - Tapes/Webbings/Elastics

1	Item Name	Tape Nylon 1.0" (25.4mm) BS 1000 Pound (454 kgf) Foliage Green			<div style="text-align: center; background-color: yellow; padding: 5px;">Attach Below Item Image</div> 							
2	Report No :	VSPL/TTC/NWF/007	Date :	05.08.2024								
3	Customer Name :	Viraj Syntex Pvt. Ltd.	Our Item Code :	NWF-PIA-1266 (FLG GRN)								
4	MIL Specification No :	PIA-T-5038	Type & Class No :	IV & 1A								
5	Loom Type :	Needle Loom	Job No & Date :	Sample								
6	Sample Tested :	5	Qty/Lot Size :	15 yards								

Sr	DETAILS	Specn Requirements	Tolerance	Test Results 1			Test Result 2	Test Result 3	Test Result 4	Test Result 5	Test Results (Av)	Test Method
1	Width (Inch) :	1.0	+ 1/32,- 1/16	0.988	25.1	mm	0.985	0.986	0.986	0.988	0.987	ASTM D 3774 Option B
2	Weight / Meter (Oun/Yd.) :	0.50	max.	0.460	14.27	Gm	0.461	0.460	0.460	0.460	0.461	ASTM D 3776 Option D
3	Thickness (Inch) :	0.030 - 0.040	N/A	0.030	0.79	mm	0.031	0.032	0.032	0.031	0.031	ASTM D 1777 Option 2
4	Picks / Inch :	96.0	min.	96.0	386	dm	98	98	98	98	98	ASTM D 3775
5	Warp Yarns / Inch :	N/A	N/A	N/A			N/A	N/A	N/A	N/A	N/A	5050
6	Break Strength (Pound) & Test Graph :	1000	Required	min.	1344	610	Kgf	1340	1345	1335	1340	PIA 4108 - Graph Attached
7	After Abrasion Break Strength (Pound) & Test Graph :	N/A	Required	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5309 & 4108- Graph Attached
8	Elongation (%) at BREAK :	18	min.	25.7			24.6	24.9	25.9	24.9	25.2	PIA 4108 - Graph Attached
	at WLL :	N/A	N/A	N/A			N/A	N/A	N/A	N/A	N/A	N/A
9	Material Type & Den/Ply/TPI of Warp 1 :	Nylon 66	420/1	N/A	Nylon 66	420/1	N/A	N/A	N/A	N/A	420/1	ASTM D 276/AATCC 20/ASTM D1907/Visual
	Warp 2 :	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	Warp 3 (Rubber) :	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	Weft :	Nylon 66	210/1	N/A	Nylon 66	210/1	N/A	N/A	N/A	N/A	210/1	
	Binder :	Nylon 66	420/1	N/A	Nylon 66	420/1	N/A	N/A	N/A	N/A	420/1	
	Stuffer :	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
10	Lock :	Nylon 66	30 to 210	N/A	Nylon 66	210/1	N/A	N/A	N/A	N/A	210/1	ASTM D 3775
	Ends in full Width :	Ends		Ends	Wt/Yd (Oun)	Wt/mtr (grm)						
	Warp 1 :	197	min.	197	0.337	10.45	N/A	N/A	N/A	N/A	197	
	Warp 2 :	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	Warp 3 (Rubber) :	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	Weft :	1	N/A	1	0.078	2.41	N/A	N/A	N/A	N/A	1	
	Binder :	16	min.	16	0.039	1.20	N/A	N/A	N/A	N/A	16	
	Stuffer :	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
Catch-Cord (Lock) :	1	N/A	1	0.007	0.21	0.28	N/A	N/A	N/A	1		
11	Weave :	Double Plain	N/A	Double Plain			N/A	N/A	N/A	N/A	Double Plain	Visual

12	Warp Yarn Filling type :	Single	N/A	Single	N/A	N/A	N/A	N/A	Single	Visual	
13	Weft Yarn Filling type :	Single	N/A	Single	N/A	N/A	N/A	N/A	Single	Visual	
14	Shade & Shade Code :	Foliage Green FLG GRN	N/A	Foliage Green FLG GRN	N/A	N/A	N/A	N/A	Foliage Green	Visual	
	Spectrophotometer Average five Readings (LxAxB) :	36.83 x -2.55 x 2.08	N/A	33.63 x -2.2 x 2.63	35.05 x -2.3 x 2.64	35.02 x -2.29 x 2.7	36.09 x -2.73 x 2.69	35.94 x -2.39 x 2.62	35.15 x -2.38 x 2.66	AATCC TM 173:2015 D65/10°	
	Shade Difference (ΔE) :	≤ 2	N/A	1.79	0.81	0.62	0.52	1.82	1.11	AATCC TM 173:2015 D65/10°	
15	Fastness To Washing (Laundering) :										
	Color Change	3-4	min.	4	N/A	N/A	N/A	N/A	4.0	AATCC 61/TEST 1A	
	Colour Staining	3-4	min.	3	N/A	N/A	N/A	N/A	3.0	AATCC 61/TEST 1A	
	Light :	3-4	min.	4	N/A	N/A	N/A	N/A	4.0	AATCC 16 Option 1	
	Rubbing (Crocking) Wet & Dry :	3.5	min.	4	N/A	N/A	N/A	N/A	4.0	AATCC 8	
	Perspiration :	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
16	Residual Shrinkage (%) :	2.0	max.	N/A	N/A	N/A	N/A	N/A	N/A	See Clause 4.6	
17	Melting Point of Yarn (F) :	473	min.	500.36	265.0°C	N/A	N/A	N/A	N/A	500.36	AATCC 20
18	Curvature (Inch) :	0.25	max.	0.05	1.3 mm	0.06	0.08	0.07	0.06	0.06	See Clause 4.5.3
19	pH :	5.5, < 9.0	N/A	7.5	8	N/A	N/A	N/A	7.75	AATCC 81	
20	Resistance to Light (%) :	< 25	N/A	8.7	8.6	9.0	8.6	8.5	8.68	4.5.1 and PIA-TEST METHOD-4108	
	Resistance to Heat (%) :	< 25	N/A	9.2	8.9	9.7	9.1	9.0	9.18	4.5.2 and PIA-TEST METHOD-4108	
21	Remarks :										
	Remarks :										
Over All Test Result :		Pass				Lot Size (Yards)	Sampling	The Sample unit for testing shall be as follows			
Prepared By (Asst. Lab)			Date :		800 or less	2	Type II, 1-1/2 inches and 2 inches			30 yards	
Checked & Approved By (Lab/QC Inch.)			Date :		801 up to 22,000	3	Type IV, 1-1/2 inches & Type VII, 1 and 2 inches			30 yards	
Doc.no : VSPL/LAB (MIL TTC)/31 REV:00/01.12.22					22,000 & over	5	All other type			15 yards	

Attach Tested Sample Cutting Here

VIRAJ SYNTEX (PVT.) LTD

(An ISO 9001 : 2015 Certified Company)

C-36, UPSIDC Industrial Area, Rooma, Kanpur-209402 (U. P.) INDIA

TEL : +91-9839905653, FAX : +91-512-2691283

WEB : www.virajsyntax.com E MAIL : lab.rooma@virajsyntax.com

**TEST REPORT**

Tensile / Breaking Load & Elongation Test - Tapes/W ebbings			
Report No. :	VSPL/TT/002	Date :	8/12/2024
Order / Job No.:	Viraj Syntex Pvt.Ltd.	Time :	2:40:02 PM
Item Detail :	Webbing Nylon 1.00" BS 1000 Pound	M/C Capacity (Kgf) :	20,000
Item Code :	NWFS-PIA-9102 Foliage Green	WLL(Kgf) :	N/A
Sample No. :	001	Batch No. :	Sample
Test Specification :	PIA-T-5038(T-IV,C-1)	Grip Distance (mm) :	150
Test Procedure No. :	PIA-T-5038(T-IV,C-1)	Traverse Speed (mm/min) :	300
Test Discription			
The test sample shall be centrally clamped between the upper fixed grip and lower moving desired type of grips of the sample and as per required grip distance and traverse speed so that the longitudinal axis of the sample is at right angles to the edges of the grips after pretension. Please refer following Specifications for determination of Breaking Load _Elongation at break.			
Test Exceptions / Deviations , If Any :			
TEST RESULTS			
Test Parameter	Results	Required	
Tensile / Breaking Peak Load (Kgf) :	609	454 min.	
Elongation at Break (mm) :	246.4	N/A	
Elongation % at N/A Kgf / WLL :	N/A	N/A	
Elongation % at 609 Kgf / Peak Load :	24.6	18 min.	
TEST GRAPH			
<p>The graph plots Load (Kgf) on the y-axis (0 to 1526) against Displacement (mm) on the x-axis (0.0 to 260.0). The curve shows a steady, nearly linear increase in load with displacement, reaching a peak of approximately 609 Kgf at 246.4 mm displacement. After the peak, the load drops sharply to zero.</p>			
Final Test Results :		PASS	FAIL
Test Comments / Remarks :			
Tested By (Lab Assistant) : Name Signatures			
Checked By (Lab/QC Incharge) : Name Signatures			
Doc No : VSPL/LAB/06/TM/Rev:01/20.11.23			

Smart Utility For Spectrophotometer

Save

Print

Export

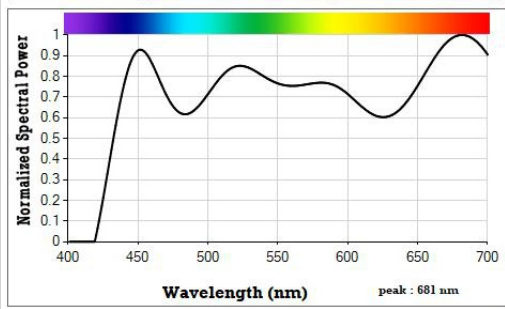
Import

Send Reference to Device

Offset

Min

Exit



D65/10°			
XYZ	X = 12.57	Y = 14.01	Z = 13.98
Yxy	Y = 14.01	x = 0.31	y = 0.35
CIE	L* = 44.25	a* = -4.74	b* = 2.5
	L* = 44.25	C* = 5.36	h° = 152.18
	L* = 44.25	u* = -4.53	v* = 3.97
Hunter	L = 37.43	a = -3.46	b = 1.76
CCT = 6535 Kelvin			
Peak Wavelength = 681 nm			
RGB = 99,107,97			
CMYK = 7.48,0,9.35,58.04			

Index Is Not Selected
-Available Indices-

- Whiteness Index (CIE)
- Whiteness Index (Hunter)
- Whiteness Index (Stensby)
- Whiteness Index (All)
- Yellowness Index (YI)
- Baking Contrast Unit (BCU)
- Tomato Color Index (TGI)
- Ripening Index
- Citrus Color Index (CCI)
- Citrus Number (CN)
- Citrus Red (CR)
- Coffee Roast Index
- Road Marking Paint

MATCH :



ΔE^* : 1.5	ΔL^* : -1.36
Δa^* : 0.12	Δb^* : 0.63

Alarm Limit : 0%

Select Port :

COM3

Close

Single Measurement

Real Time Analysis

Find Match from Database

Color Based Grading

E.g., Company details, operating station, sample description, batch and lot number, sample supplier details, date and time..

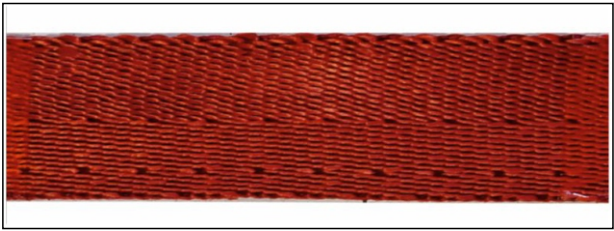


www.sensegoodinstruments.com



Technical Test Certificate - MIL Spec.& PIA - Tapes/Webbings/Elastics

1	Item Name	Webbing Nylon 1.0"(25.4mm) BS 2500 Pound (1135 kgf) Red Resin Treated			Attach Below Item Image							
2	Report No :	VSPL/TTC/NWF/008	Date :	12.08.2024								
3	Customer Name :	Viraj Syntex Pvt.Ltd.	Our Item Code :	NWF-PIA-1119 Red (R)								
4	MIL Specification No :	PIA-W-4088	Type & Class No :	XVII & 1AR								
5	Loom Type :	Needle Loom	Job No & Date :	Sample								
6	Sample Tested :	5	Qty/Lot Size :	20 yards								



Sr	DETAILS	Specn Requirements		Tolerance	Test Results 1			Test Result 2	Test Result 3	Test Result 4	Test Result 5	Test Results (Av)	Test Method
1	Width (Inch) :	1.0		± 1/16	1.024	26.0	mm	1.023	1.024	1.023	1.024	1.024	ASTM D 3774 Option B
2	Weight / Meter (Oun/Yd.) :	1.15		max.	0.891	27.62	Gm	0.905	0.906	0.904	0.905	0.902	ASTM D 3776 Option D
3	Thickness (Inch) :	0.045-0.070		N/A	0.055	1.39	mm	0.057	0.055	0.056	0.055	0.056	ASTM D 1777 Option 2
4	Picks / Inch :	30.0		min.	31.0	122	dm	31	31	31	31	31	ASTM D 3775
5	Warp Yarns / Inch :	N/A		N/A	N/A			N/A	N/A	N/A	N/A	N/A	5050
6	Break Strength (Pound) & Test Graph :	2500	Required	min.	3172	1440	Kgf	1340	3165	3180	3175	3166	PIA 4108 - Graph Attached
7	After Abrasion Break Strength (Pound) & Test Graph :	N/A	Required	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	5309 & 4108- Graph Attached
8	Elongation (%) at BREAK :	N/A		N/A	N/A			N/A	N/A	N/A	N/A	N/A	N/A
	at WLL :	N/A		N/A	N/A			N/A	N/A	N/A	N/A	N/A	N/A
9	Material Type & Den/Ply/TPI of Warp 1 :	Nylon 66	840/2/2.5	N/A	Nylon 66	840/2/2.5	N/A	N/A	N/A	N/A	N/A	840/2/2.5	ASTM D 3775
	Warp 2 :	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	Warp 3 (Rubber) :	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	Weft :	Nylon 66	840/1	N/A	840/1/2.5	210/1	N/A	N/A	N/A	N/A	N/A	840/1/2.5	
	Binder :	N/A	N/A	N/A	Nylon 66	420/1	N/A	N/A	N/A	N/A	N/A	420/1	
	Stuffer :	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	Lock :	Nylon 66	70 to 500	N/A	Nylon 66	210/1	N/A	N/A	N/A	N/A	N/A	210/1	
10	Ends in full Width :	Ends			Ends	Wt/Yd (Oun)	Wt/mtr (grm)						ASTM D 3775
	Warp 1 :	114		min.	114	0.824	25.54	N/A	N/A	N/A	N/A	114	
	Warp 2 :	N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	Warp 3 (Rubber) :	N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	Weft :	1		N/A	1	0.064	1.98	N/A	N/A	N/A	N/A	1	
	Binder :	N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	Stuffer :	N/A		N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
	Catch-Cord (Lock) :	1		N/A	1	0.004	0.11	N/A	N/A	N/A	N/A	1	
11	Weave :	Herringbone Twill		N/A	Herringbone Twill			N/A	N/A	N/A	N/A	Herringbone Twill	Visual

12	Warp Yarn Filling type :	2 Ply	N/A	2 Ply	N/A	N/A	N/A	N/A	2 Ply	Visual
13	Weft Yarn Filling type :	Single	N/A	Single	N/A	N/A	N/A	N/A	Single	Visual
14	Shade & Shade Code :	Red RED	N/A	Red RED	N/A	N/A	N/A	N/A	Red	Visual
	Spectrophotometer Average five Readings (LxAxB) :	30.29 x 30.64 x 10.26	N/A	29.11 x 29.72 x 10.48	29.08 x 29.63 x 10.52	29.18 x 29.69 x 10.56	29.10 x 29.63 x 10.52	29.17 x 29.74 x 10.43	29.12 x 29.68 x 10.50	AATCC TM 173:2015 D65/10°
	Shade Difference (ΔE) :	≤ 2	N/A	1.79	1.68	1.64	1.76	1.72	1.72	AATCC TM 173:2015 D65/10°
15	Fastness To Washing (Laundering) :									
	Color Change	2-3	min.	3	N/A	N/A	N/A	N/A	3.0	AATCC 61/TEST 1A
	Colour Staining	2-3	min.	3	N/A	N/A	N/A	N/A	3.0	AATCC 61/TEST 1A
	Light :	3-4	min.	4	N/A	N/A	N/A	N/A	4.0	AATCC 16 Option 1
	Rubbing (Crocking) Wet & Dry :	3.5	min.	3	N/A	N/A	N/A	N/A	3.0	AATCC 8
	Perspiration :	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
16	Residual Shrinkage (%) :	2.0	max.	N/A	N/A	N/A	N/A	N/A	N/A	See Clause 4.5.4
17	Melting Point of Yarn (F) :	473	min.	492.44 255.8C	N/A	N/A	N/A	N/A	492.44	Visual
18	Curvature (Inch) :	0.25	max.	0.04 1 mm	0.07	0.06	0.07	0.07	0.06	Para 4.5.1
19	pH :	5.5, < 9.0	N/A	8	7.5	N/A	N/A	N/A	7.75	2811
20	Resistance to Light (%) :	< 25	N/A	9.1	8.7	10.2	9.8	9.4	9.44	4.5.1 and PIA-TEST METHOD-4108
	Resistance to Heat (%) :	< 25	N/A	10	9.7	9.8	9.8	9.5	9.76	4.5.2 and PIA-TEST METHOD-4108
21	Remarks :									
	Remarks :									
Over All Test Result :		Pass			Lot Size (Yards)	Sampling	The Sample unit for testing shall be as follows			
Prepared By (Asst. Lab)		Date :		800 or less	2	Types 1 , 1a , 1b , II & III			10 yards	
Checked & Approved By (Lab/QC Inch.)		Date :		801 up to 22,000	3	Types XXII & XXVII			25 yards	
Doc.no : VSPL/LAB (MIL TTC)/31 REV:00/01.12.22				22,000 & over	5	All other types			20 yards	

Attach Tested Sample Cutting Here

VIRAJ SYNTEX (PVT.) LTD

(An ISO 9001 : 2015 Certified Company)

C-36, UPSIDC Industrial Area, Rooma, Kanpur-209402 (U.P.) INDIA

TEL : +91-9839905653, FAX : +91-512-2691283

WEB : www.virajsyntax.com E MAIL : lab.rooma@virajsyntax.com



TEST REPORT

Tensile / Breaking Load & Elongation Test - Tapes/Webbings			
Report No. :	VSPL/TT/008	Date :	8/12/2024
Order / Job No.:	Viraj Syntex Pvt. Ltd.	Time :	2:30:09 PM
Item Detail :	Webbing Nylon 1.0" BS 2500 Pound eated	M/C Capacity (Kgf) :	20,000
Item Code :	NWF-PIA-1119 Red (R)	WLL(Kgf) :	N/A
Sample No. :	001	Batch No. :	Sample
Test Specification :	PIA-W-4088 (T-XVII,C-1AR)	Grip Distance (mm) :	150
Test Procedure No. :	PIA-W-4088 (T-XVII,C-1AR)	Traverse Speed (mm/min)	300
Test Discription			
The test sample shall be centrally clamped between the upper fixed grip and lower moving desired type of grips of the sample and as per required grip distance and traverse speed so that the longitudinal axis of the sample is at right angles to the edges of the grips after pretension.Please refer following Specifications for determination of Breaking Load .Elongation at break.			
Test Exceptions / Deviations , If Any :			
TEST RESULTS			
Test Parameter	Results	Required	
Tensile / Breaking Peak Load (Kgf) :	1440	1135 Min.	
Elongation at Break (mm) :	285.9	N/A	
Elongation % at N/A Kgf / WLL :	N/A	N/A	
Elongation % at 1440 Kgf / Peak Load :	N/A	N/A	
TEST GRAPH			
<p>The graph plots Load (Kgf) on the y-axis (0 to 1908) against Displacement (mm) on the x-axis (0.0 to 280.0). The curve shows a steady, nearly linear increase in load with displacement, reaching a peak of 1440 Kgf at approximately 285.9 mm. After the peak, the load drops sharply to near zero.</p>			
Final Test Results :	PASS	FAIL	
Test Comments / Remarks :			
Tested By (Lab Assistant) : Name Signatures			
Checked By (Lab/QC Incharge) : Name Signatures			
Doc No : VSPL/LAB/06/TM/Rev:01/20.11.23			

Smart Utility For Spectrophotometer

Save

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Export

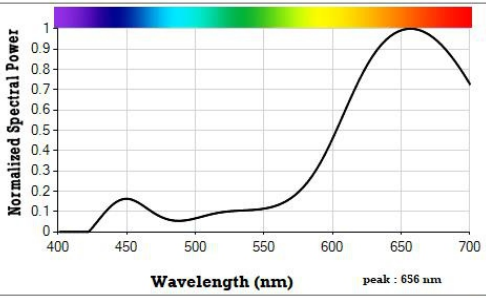
Import

Send Reference to Device

Offset

Min

Exit



D65/10°			
XYZ	X = 12.8	Y = 8.48	Z = 4.17
Yxy	Y = 8.48	x = 0.5	y = 0.33
CIE	L* = 34.96	a* = 36.85	b* = 20.1
	L* = 34.96	C* = 41.98	h° = 28.62
	L* = 34.96	u* = 62.67	v* = 14.01
Hunter	L = 29.12	a = 29.7	b = 10.49
CCT = 1722 Kelvin			
Peak Wavelength = 656 nm			
RGB = 141,54,49			
CMYK = 0,61.7,65.25,44.71			

Index Is Not Selected
-Available Indices-

- Whiteness Index (CIE)
- Whiteness Index (Hunter)
- Whiteness Index (Stensby)
- Whiteness Index (All)
- Yellowness Index (YI)
- Baking Contrast Unit (BCU)
- Tomato Color Index (TCI)
- Ripening Index
- Citrus Color Index (CCI)
- Citrus Number (CN)
- Citrus Red (CR)
- Coffee Roast Index
- Road Marking Paint

MATCH :



ΔE^* : 1.79	ΔL^* : -1.39
Δa^* : -0.62	Δb^* : 0.94
Alarm Limit : 0%	

Select Port :

COM3

Close

- Single Measurement
- Real Time Analysis
- Find Match from Database
- Color Based Grading

E.g., Company details, operating station, sample description, batch and lot number, sample supplier details, date and time..

