



# VIRAJ SYNTEX PVT. LTD.



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

|    |                                                      |                                    |                     |                  |                     |                     |                     |                                                                                     |                     |                     |                             |
|----|------------------------------------------------------|------------------------------------|---------------------|------------------|---------------------|---------------------|---------------------|-------------------------------------------------------------------------------------|---------------------|---------------------|-----------------------------|
| 1  | Item Name :                                          | Tape Nylon 3/4" BS 400 Pound Black |                     |                  |                     |                     |                     | Attach Below Item Image                                                             |                     |                     |                             |
| 2  | Report No :                                          | VSPL/TTC/NWF/01                    |                     | Date :           | 05.09.2026          |                     |                     |  |                     |                     |                             |
| 3  | Customer Name :                                      | Viraj Syntex Pvt. Ltd.             |                     | Our Item Code :  | NWFS-PIA-9097 BLK   |                     |                     |                                                                                     |                     |                     |                             |
| 4  | Customer Part No. :                                  | N/A                                |                     | Po. No. & Date : | N/A                 |                     |                     |                                                                                     |                     |                     |                             |
| 5  | MIL Specification No :                               | PIA-T-5038                         |                     | Type & Class :   | III & 1             |                     |                     |                                                                                     |                     |                     |                             |
| 6  | Loom Type :                                          | Shuttle Loom                       |                     | Job No & Date :  | Sample Test Report  |                     |                     |                                                                                     |                     |                     |                             |
| 7  | Sample Tested :                                      | 5                                  |                     | Qty/Lot Size :   | As Per Requirement  |                     |                     |                                                                                     |                     |                     |                             |
| Sr | DETAILS                                              | Unit                               | 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                               | 0.750               | ± 0.0312         | 0.748               | 0.746               | 0.749               | 0.748                                                                               | 0.748               | 0.748               | ASTM D 3774 Option B        |
| 2  | Weight / Meter :                                     | oz./yd                             | 0.200               | max.             | 0.177               | 0.174               | 0.176               | 0.175                                                                               | 0.177               | 0.176               | ASTM D 3776 Option D        |
| 3  | Thickness /Unit :                                    | inch                               | 0.015-0.025         | N/A              | 0.016               | 0.016               | 0.016               | 0.017                                                                               | 0.016               | 0.016               | ASTM D 1777 Option 2        |
| 4  | Picks / Unit :                                       | inch                               | 33                  | min.             | 34                  | 34                  | 34                  | 34                                                                                  | 34                  | 34                  | ASTM D 3775                 |
| 5  | Warp Yarns / Unit :                                  | N/A                                | N/A                 | N/A              | N/A                 | N/A                 | N/A                 | N/A                                                                                 | N/A                 | N/A                 | 5050                        |
| 6  | Break Strength & Test Graph :                        | lbs.                               | 400                 | min.             | 440                 | 456                 | 436                 | 448                                                                                 | 462                 | 448                 | PIA 4108 - Graph Attached   |
| 7  | After Abrasion Break Strength (Pound) & Test Graph : | N/A                                | N/A                 | N/A              | N/A                 | N/A                 | N/A                 | N/A                                                                                 | N/A                 | N/A                 | 5309 & 4108- Graph Attached |
|    | Elongation at BREAK :                                | %                                  | 18                  | min.             | 22.2                | 21.1                | 20.4                | 21.0                                                                                | 21.3                | 21.2                | PIA 4108 - Graph Attached   |
|    | at WLL :                                             | %                                  | N/A                 | N/A              | N/A                 | N/A                 | N/A                 | N/A                                                                                 | N/A                 | N/A                 | N/A                         |
|    | Material Type & Den/Ply/TPM of Warp 1 :              | Nylon 6,6                          | 210/1/N/A           | N/A              | Nylon 6,6           | 210/1/N/A           | N/A                 | N/A                                                                                 | N/A                 | 210/1/N/A           | ASTM D 3775                 |
|    | Warp 2 :                                             | 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                 |                             |
|    | Weft :                                               | Nylon 6,6                          | 420/1/N/A           | N/A              | Nylon 6,6           | 420/1/100           | N/A                 | N/A                                                                                 | N/A                 | 420/1/100           |                             |
|    | Binder :                                             | 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                 |                             |
|    | Lock :                                               | N/A                                | N/A                 | N/A              | N/A                 | N/A                 | N/A                 | N/A                                                                                 | N/A                 | N/A                 |                             |
|    | Ends in full Width :                                 |                                    | Ends                |                  | Ends                |                     |                     |                                                                                     |                     |                     | ASTM D 3775                 |
|    | Warp 1 :                                             | N/A                                | 150                 | min.             | 150                 | N/A                 | N/A                 | N/A                                                                                 | N/A                 | 150                 |                             |
|    | Warp 2 :                                             | 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                 |                             |
|    | Weft :                                               | N/A                                | 1                   | N/A              | 1                   | 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                 |                             |
|    | Stuffer :                                            | N/A                                | N/A                 | N/A              | N/A                 | N/A                 | N/A                 | N/A                                                                                 | N/A                 | N/A                 |                             |
|    | Catch-Cord (Lock) :                                  | N/A                                | N/A                 | N/A              | N/A                 | N/A                 | N/A                 | N/A                                                                                 | N/A                 | N/A                 |                             |
| 11 | Weave :                                              | N/A                                | Plain               | N/A              | Plain               | N/A                 | N/A                 | N/A                                                                                 | N/A                 | Plain               | Visual                      |
| 12 | Warp Yarn Filling type :                             | N/A                                | Single              | N/A              | Single              | N/A                 | N/A                 | N/A                                                                                 | N/A                 | Single              | Visual                      |
| 13 | Weft Yarn Filling type :                             | N/A                                | Single              | N/A              | Single              | N/A                 | N/A                 | N/A                                                                                 | N/A                 | Single              | Visual                      |
| 14 | Shade & Shade Code :                                 | N/A                                | Black (BLK)         | N/A              | Black (BLK)         | N/A                 | N/A                 | N/A                                                                                 | N/A                 | Black (BLK)         | Visual                      |
|    | Spectrophotometer Average five Readings (LxAxB) :    | N/A                                | 15.63 x 1.36 x 2.04 | N/A              | 15.44 x 1.42 x 1.76 | 15.42 x 1.41 x 1.74 | 15.47 x 1.44 x 1.79 | 15.45 x 1.43 x 1.75                                                                 | 15.41 x 1.39 x 1.73 | 15.44 x 1.42 x 1.75 | AATCC TM 173:2015 D65/10°   |
|    | Shade Difference (ΔE) :                              | N/A                                | ≤ 2                 | N/A              | 0.68                | 0.66                | 0.71                | 0.67                                                                                | 0.64                | 0.68                | AATCC TM 173:2015 D65/10°   |

>>>> Cont. on Page 2

| 1                                                                   | Item Name :                                       | Tape Nylon 3/4" BS 400 Pound Black |                         |                  |                    |               | Attach Below Item Image                                                             |               |               |                   |                                      |
|---------------------------------------------------------------------|---------------------------------------------------|------------------------------------|-------------------------|------------------|--------------------|---------------|-------------------------------------------------------------------------------------|---------------|---------------|-------------------|--------------------------------------|
| 2                                                                   | Report No :                                       | VSPL/TTC/NWF/01                    |                         | Date :           | 05.09.2026         |               |  |               |               |                   |                                      |
| 3                                                                   | Customer Name :                                   | Viraj Syntex Pvt. Ltd.             |                         | Our Item Code :  | NWFS-PIA-9097 BLK  |               |                                                                                     |               |               |                   |                                      |
| 4                                                                   | Customer Part No. :                               | N/A                                |                         | Po. No. & Date : | N/A                |               |                                                                                     |               |               |                   |                                      |
| 5                                                                   | MIL Specification No :                            | PIA-T-5038                         |                         | Type & Class :   | III & 1            |               |                                                                                     |               |               |                   |                                      |
| 6                                                                   | Loom Type :                                       | Shuttle Loom                       |                         | Job No & Date :  | Sample Test Report |               |                                                                                     |               |               |                   |                                      |
| 7                                                                   | Sample Tested :                                   | 5                                  |                         | Qty/Lot Size :   | As Per Requirement |               |                                                                                     |               |               |                   |                                      |
| Sr                                                                  | DETAILS                                           | Unit                               | Specn Requirements      | Tolerance        | Test Results 1     | Test Result 2 | Test Result 3                                                                       | Test Result 4 | Test Result 5 | Test Results (Av) | Test Method                          |
| 15                                                                  | Fastness To Washing (Laundering) :                |                                    |                         |                  |                    |               |                                                                                     |               |               |                   |                                      |
|                                                                     | Color Change                                      | N/A                                | 3-4                     | min.             | 4                  | N/A           | N/A                                                                                 | N/A           | N/A           | 4.0               | AATCC 61/TEST 1A                     |
|                                                                     | Colour Staining                                   | N/A                                | 3-4                     | min.             | 3                  | N/A           | N/A                                                                                 | N/A           | N/A           | 3.0               | AATCC 61/TEST 1A                     |
|                                                                     | Light :                                           | N/A                                | 3-4                     | min.             | 3                  | N/A           | N/A                                                                                 | N/A           | N/A           | 3.0               | AATCC 16 Option 1                    |
|                                                                     | Rubbing (Crocking) Wet & Dry :                    | N/A                                | 3.5                     | min.             | 4.5                | N/A           | N/A                                                                                 | N/A           | N/A           | 4.5               | AATCC 8                              |
|                                                                     | Perspiration :                                    | N/A                                | 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.             | 498                | N/A           | N/A                                                                                 | N/A           | N/A           | 498.00            | Visual                               |
| 18                                                                  | Curvature :                                       | inch                               | 0.25                    | max.             | 0.04               | 0.07          | 0.07                                                                                | 0.06          | 0.05          | 0.06              | Para 4.5.3                           |
| 19                                                                  | pH :                                              | N/A                                | 5.5-9.0                 | N/A              | 6.8                | 7.4           | N/A                                                                                 | N/A           | N/A           | 7.1               | AATCC 81                             |
| 20                                                                  | BS After Resistance to Light (Kgf) :              | lbs.                               | 300                     | min.             | 360                | 364           | 361                                                                                 | 358           | 360           | 361               | ASTM G 151, ASTM G 155 & PIA-TM-4108 |
|                                                                     | BS Loss % After Resistance to Light (Xenon Arc) : | %                                  | Not Lose More Than 25 % | N/A              | 18.18              | 20.18         | 17.20                                                                               | 20.09         | 22.08         | 19.55             | ASTM G 151 & ASTM G 155              |
| 21                                                                  | BS After Resistance to Heat (Kgf) :               | lbs.                               | 300                     | min.             | 386                | 380           | 379                                                                                 | 375           | 381           | 380               | ASTM D 1776 & PIA-TM-4108            |
|                                                                     | BS Loss % After Resistance to Heat (Oven) :       | %                                  | Not Lose More Than 25 % | N/A              | 12.27              | 16.67         | 13.07                                                                               | 16.29         | 17.53         | 15.17             | ASTM D 1776                          |
| 22                                                                  | Remarks :                                         |                                    |                         |                  |                    |               |                                                                                     |               |               |                   |                                      |
|                                                                     | Remarks :                                         |                                    |                         |                  |                    |               |                                                                                     |               |               |                   |                                      |
|                                                                     | Remarks :                                         |                                    |                         |                  |                    |               |                                                                                     |               |               |                   |                                      |
| Over All Test Result :                                              |                                                   | Pass                               |                         |                  |                    |               | Lot Size                                                                            | Unit          | Sampling      | Lot Size/Unit     | Sampling                             |
| Prepared By (Asst. Lab)                                             |                                                   | For Viraj Syntex (P) Ltd           |                         |                  |                    |               | 800 or less                                                                         | Mtr           | 2             | 5,001 & 22,000    | 5                                    |
| Checked & Approved By (Lab/QC Inch.)                                |                                                   |                                    |                         |                  |                    |               | 801 up to 5,000                                                                     | Mtr           | 3             | 22,001 and Over   | 7                                    |
| Doc.no : VSPL/LAB (MIL TTC)/31 REV:00/01.12.22<br>Lab/Q.C. Incharge |                                                   |                                    |                         |                  |                    |               |                                                                                     |               |               |                   |                                      |

**VIRAJ SYNTEX (PVT.) LTD**

( An ISO 9001 : 2015 Certified Company )

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**TEST REPORT**

| Tensile / Breaking Load & Elongation Test - Tapes/Webbings |                                  |                           |             |
|------------------------------------------------------------|----------------------------------|---------------------------|-------------|
| Report No. :                                               | VSPL/TT/26-27/01                 | Date :                    | 09/05/2026  |
| Order / Job No.:                                           | Viraj Syntex Pvt. Ltd.           | Time :                    | 11:52:06 AM |
| Item Detail :                                              | Tape Nylon 3/4" BS 400 lbs Black | M/C Capacity (Kgf):       | 500         |
| Item Code :                                                | NWFS-PIA-9097 BLK                | WLL(Kgf) :                | N/A         |
| Sample No. :                                               | 001                              | Batch No. :               | Sample      |
| Test Specification :                                       | PIA-T-5038 (T-III, C-1)          | Grip Distance (mm) :      | 254         |
| Test Procedure No. :                                       | PIA-TM-4108                      | Traverse Speed (mm/min) : | 66          |

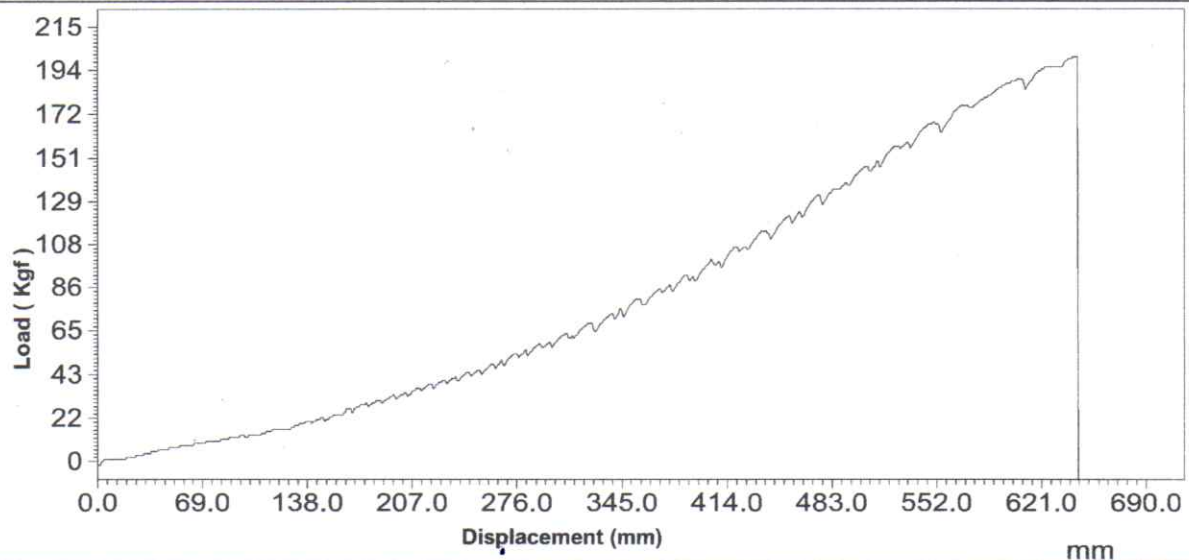
**Test Discription**

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 ) : | 200     | 182 Min. |
| Elongation at Break (mm) :             | 645.7   | N/A      |
| Elongation % at N/A Kg / WLL           | N/A     | N/A      |
| Elongation % at 200 Kg / Peak Load :   | 22.2    | 18 Min.  |

**TEST GRAPH**

|                      |        |      |
|----------------------|--------|------|
| Final Test Results : | PASS ✓ | FAIL |
|----------------------|--------|------|

**Test Comments / Remarks :**

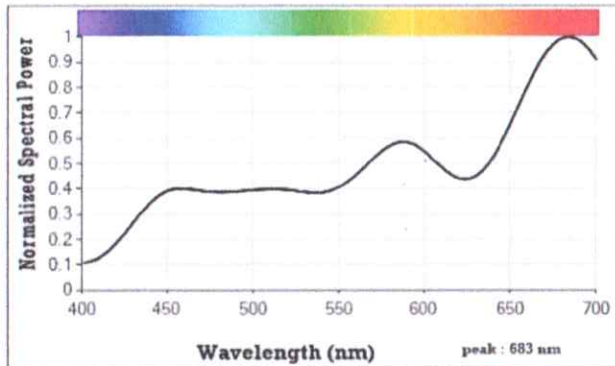
|                                    |                   |            |             |
|------------------------------------|-------------------|------------|-------------|
| Tested By ( Lab Assistant ) : Name | Anurag Srivastava | Signatures | [Signature] |
| Checked By ( Lab Incharge ) : Name | Ankit Kushwaha    | Signatures | [Signature] |

Doc No : VSPL/LAB/06/T/REV:00/1.1.14

Lab/Q.C. Incharge

## Smart Utility For Spectrophotometer

|      |       |        |        |                          |        |     |      |
|------|-------|--------|--------|--------------------------|--------|-----|------|
| Save | Print | Export | Import | Send Reference to Device | Offset | Min | Exit |
|------|-------|--------|--------|--------------------------|--------|-----|------|



|                            |            |           |            |
|----------------------------|------------|-----------|------------|
| D65/10°                    |            |           |            |
| XYZ                        | X = 2.38   | Y = 2.38  | Z = 2.12   |
| Yxy                        | Y = 2.38   | x = 0.35  | y = 0.35   |
| CIE                        | L* = 17.38 | a* = 2.52 | b* = 3.5   |
|                            | L* = 17.38 | C* = 4.31 | h° = 54.19 |
|                            | L* = 17.38 | u* = 3.66 | v* = 2.85  |
| Hunter                     | L = 15.44  | a = 1.42  | b = 1.76   |
| CCT = 4951 Kelvin          |            |           |            |
| Peak Wavelength = 683 nm   |            |           |            |
| RGB = 49,41,35             |            |           |            |
| CMYK = 0,16.33,28.57,80.78 |            |           |            |

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 : 99%

|                     |                      |
|---------------------|----------------------|
| $\Delta E^*$ : 0.68 | $\Delta L^*$ : -0.29 |
| $\Delta a^*$ : 0.08 | $\Delta b^*$ : -0.61 |

Alarm Limit : 0%

Select Port : COM3

Close

NWFS-PIA-9097 BLK

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