

# Thermo Scientific Matrix Barcoded Tubes and Racks

Identify and track your samples  
for optimal sample storage

## Thermo Scientific™ Matrix™ 2D Barcoded ScrewTop Tubes in Barcoded Racks

Matrix 2D Barcoded ScrewTop Storage tubes are now available in a standard barcoded latch rack. The barcoded latch rack provides permanent 2D, linear, and human readable codes on 3 sides of the rack. A 2D barcode on the rack bottom enables orientation detection and identification when using automated storage equipment. These additions to the Matrix ScrewTop Storage tube portfolio allow visual sample identification in a range of laboratory procedures and eliminate the need for secondary labeling.



### Eliminate Secondary Labeling Steps.

Matrix 2D Barcoded ScrewTop Storage tubes are available pre-printed with 1D and human-readable codes that match the tube's 2D code. Laser etched 2D, linear and human readable barcodes are also included on the sides of the standard latch racks. The additional barcoding on tube and rack eliminates the need for the secondary application of labels, streamlining storage procedures.

**Enhanced Secure Tracking.** A permanently bonded, unique 2D barcode is laser etched onto the base of every tube to securely identify and track samples. The linear and human readable codes match this unique 2D barcode, allowing 1D scanning or visual identification of samples across satellite or collaborative sites without 2D readers. Complementary Thermo Scientific 2D and 1D barcode readers scan and instantly decode each tube's barcode into any application or database. Laser etched 2D, linear, and human readable barcodes are included on three sides of the standard latch rack, providing traceability at the rack level and providing readability to laboratories with or without barcode decoding equipment. The 2D barcode included on the bottom of the rack serves as both an orientation and identification feature for automated and benchtop storage equipment.

### Superior Storage Format.

Matrix 2D Barcoded ScrewTop storage tubes are available in specially designed, barcoded, stackable, microplate-footprint Latch Racks to save precious space in storage and on the benchtop while maintaining traceability. Lid can be positioned to rest on the rack, preventing contamination during manual pipetting. Or remove lid completely for robotic handling.

**Flexibility.** Side-printed Matrix ScrewTop tubes and barcoded latch racks maintain compatibility with existing ScrewTop tube storage systems and accessories. ScrewTop Removal Tool caps/decaps tubes individually to enable one-handed pipetting. The Thermo Scientific ScrewTop Cap Tray can be used to cap/decap several tubes at once with automated capping systems or to fill tubes on an automated liquid handling platform, then cap an entire rack at once. Seven color cap options allow easy identification of samples at a glance.

**Stringent Quality Control.** Every 2D barcoded storage tube is scanned to ensure readability. All barcodes are checked against our database of previously assigned codes to prevent duplicates.

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## Product Specifications

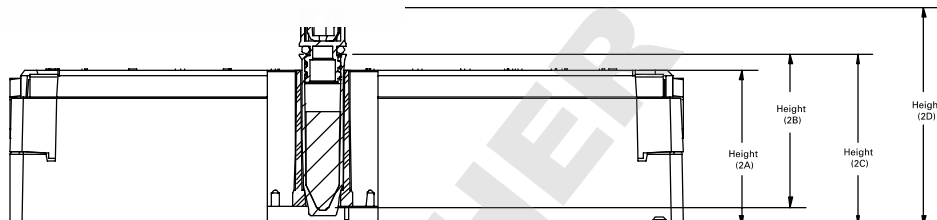
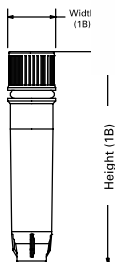
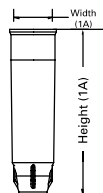
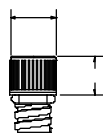
|                            |  |
|----------------------------|--|
| Tube Material              | Virgin Class VI Medical Grade Polypropylene  |
| Rack Material              | Polycarbonate with acetal latches  |
| Cap Material               | Virgin Class VI Medical Grade Polypropylene with Santoprene™ gasket                                    |
| ScrewTop Cap Tray Material | Acrylonitrile Butadiene Styrene (ABS)  |
| Contaminant-free           | All tubes and tray are supplied free from DNA, RNase, DNase and endotoxins                             |
| Autoclavable               | Racked and unracked tubes are autoclavable with the caps loosened; ScrewTop trays are not autoclavable |
| 2D Code                    | Non-proprietary, 12x12 Data-matrix with ECC200 Built-in Error Correction                               |
| Tube/Cap Temp Range        | -196°C to 121°C; Autoclaving and boiling to vapor phase liquid nitrogen storage                        |
| Latch Rack Coding          | 2D Datamatrix; Linear EAN Code 128; Human Readable   |

| Description                           | 500 µl ScrewTop Storage Tubes                                 |                           | 1.0 ml ScrewTop Storage Tubes                                 |
|---------------------------------------|---|---------------------------|---|
| Item Number                           | 3743, 3744, 3745<br>3744-WP; 3744-WP1D;<br>3745-WP; 3745-WP1D |                           | 3740, 3741, 3742<br>3741-WP; 3741-WP1D;<br>3742-WP; 3742-WP1D |
| Figure 1A: Tube Side View             | Width (1A)  | 7.40±0.10 [0.290±0.002]   | 7.40±0.10 [0.290±0.002]                                       |
|                                       | Height (1A)   | 30.60±0.20 [1.204±0.007]  | 44.00±0.10 [1.732±0.003]                                      |
| Figure 1B: Tube Side View w/ ScrewTop | Width (1B)  | 8.70±0.10 [0.344±0.003]   | 8.70±0.10 [0.344±0.003]                                       |
|                                       | Height (1B)   | 39.20 [1.543]             | 52.60 [2.071]   |
| Figure 2: Rack Side View              | Height (2A)   | 29.50±0.10 [1.160±0.005]  | 38.10±0.10 [1.500±0.005]                                      |
|                                       | Height (2B)   | 29.10±0.10 [1.145±0.005]  | 42.50±0.20 [1.673±0.008]                                      |
|                                       | Height (2C)   | 32.60±0.30 [1.282±0.012]  | 46.00±0.20 [1.809±0.008]                                      |
|                                       | Height (2D)   | 41.30±0.40 [1.626±0.017]  | 54.60±0.30 [2.149±0.110]                                      |
| Figure 3: Rack Top View               | Length  | 127.75±0.13 [5.029±0.005] | 127.75±0.13 [5.029±0.005]                                     |
|                                       | Width   | 85.46±0.13 [3.364±0.005]  | 85.46±0.13 [3.364±0.005]                                      |
| Figure 4: Stacked Rack View           | Single Height (4A)  | 44.32±0.24 [1.745±0.010]  | 58.42±0.25 [2.300±0.010]                                      |
|                                       | Incremental Height (4B)                                       | 43.31±0.25 [1.705±0.010]  | 57.30±0.25 [2.220±0.010]                                      |
|                                       | Stacked Height (4C)   | 87.63±0.51 [3.450±0.020]  | 114.81±0.51 [4.520±0.020]                                     |

| Description                | Storage Tubes Barcoded Rack   |                               |
|----------------------------|---|-------------------------------|
| Item Number                | 3743-BR, 3744-BR, 3745-BR, 3744-WP-BR, 3744-WP1D-BR, 3745-WP-BR,<br>3745-WP1D-BR, 3740-BR, 3741-BR, 3742-BR, 3741-WP-BR, 3741-WP1D-BR,<br>3742-WP-BR, 3742-WP1D-BR, 3748-BR |                               |
| Figure 5: Rack Bottom View | Distance to barcode from short side (5A)  | 120.48 ± 0.254 [4.74 ± 0.010] |
|                            | Distance to barcode from short side (5B)  | 1.443 ± 0.203 [0.057 ± 0.008] |
|                            | Barcode length  | 5.83 ± 0.127 [0.230 ± 0.005]  |
|                            | Distance to barcode from long side (5C)   | 71.98 ± 0.254 [2.834 ± 0.010] |
|                            | Distance to barcode from long side (5D)   | 8.18 ± 0.203 [0.322 ± 0.008]  |
|                            | Barcode width   | 5.30 ± 0.127 [0.209 ± 0.005]  |

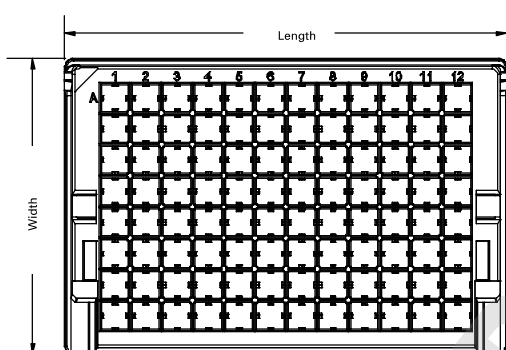
| Description                 | ScrewTop Cap Tray       |                          |
|-----------------------------|-------------------------|--------------------------|
| Item Number                 | 4906, 4477              |                          |
| Figure 6: Tray Top View     | Length                  | 127.75±0.25 [5.03±0.010] |
|                             | Width                   | 85.58±0.25 [3.37±0.010]  |
| Figure 7: Stacked Tray View | Single Height (2A)      | 19.81±0.13 [0.78±0.005]  |
|                             | Incremental Height (2B) | 18.29±0.25 [0.72±0.010]  |
|                             | Stacked Height (2C)     | 38.10±0.25 [1.50±0.010]  |



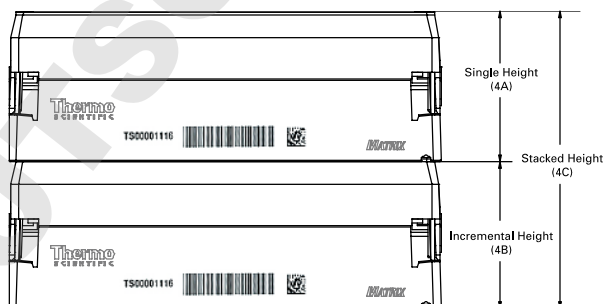


▲ Figure 1: Tube Side View

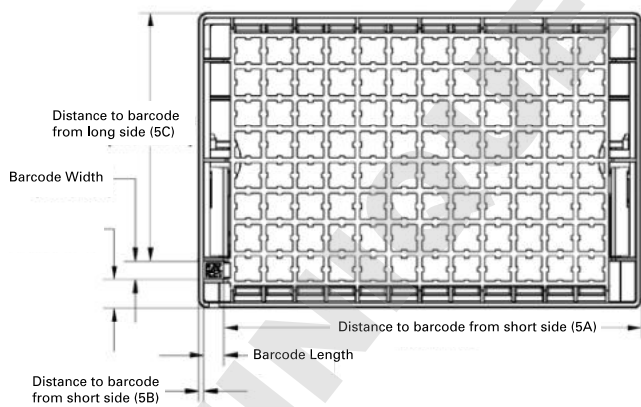
▲ Figure 2: Rack Side View



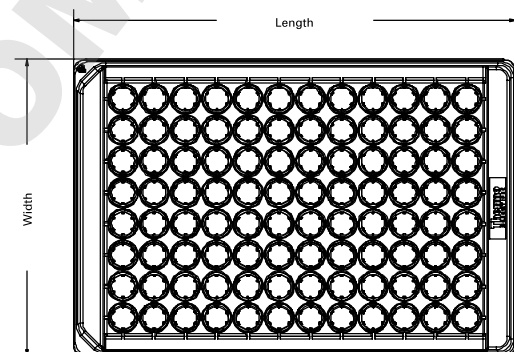
▲ Figure 3: Rack Top View



▲ Figure 4: Stacked Rack View



▲ Figure 5: Rack Bottom View



▲ Figure 6: Tray Top View



▲ Figure 7: Stacked Tray View

| Cat. No.<br>Non-Barcoded Rack | Cat. No.<br>Barcoded Rack | Description  | Max Working Volume, $\mu$ L | Cap Color | Qty                |         |
|-------------------------------|---------------------------|--|-----------------------------|-----------|--------------------|---------|
| 3744                          | 3744-BR                   | Tube, ScrewTop, 500 $\mu$ L 2D, V-Bottom                 | 590                         | Colorless | 5 racks of 96/case | Sterile |
| 3744RED                       | 3744RED-BR                | Tube, ScrewTop, 500 $\mu$ L 2D, V-Bottom                 | 590                         | Red       | 5 racks of 96/case | Sterile |
| 3744YEL                       | 3744YEL-BR                | Tube, ScrewTop, 500 $\mu$ L 2D, V-Bottom                 | 590                         | Yellow    | 5 racks of 96/case | Sterile |
| 3744BLU                       | 3744BLU-BR                | Tube, ScrewTop, 500 $\mu$ L 2D, V-Bottom                 | 590                         | Blue      | 5 racks of 96/case | Sterile |
| 3744GRE                       | 3744GRE-BR                | Tube, ScrewTop, 500 $\mu$ L 2D, V-Bottom                 | 590                         | Green     | 5 racks of 96/case | Sterile |
| 3744WHI                       | 3744WHI-BR                | Tube, ScrewTop, 500 $\mu$ L 2D, V-Bottom                 | 590                         | White     | 5 racks of 96/case | Sterile |
| 3744PUR                       | 3744PUR-BR                | Tube, ScrewTop, 500 $\mu$ L 2D, V-Bottom                 | 590                         | Purple    | 5 racks of 96/case | Sterile |
| 3744AMB                       | 3744AMB-BR                | Amber Tube, ScrewTop, 500 $\mu$ L 2D, V-bottom           | 590                         |           | 5 racks of 96/case | Sterile |
| 3743AMB                       | 3743AMB-BR                | Amber Tube, ScrewTop, 500 $\mu$ L 2D, V-bottom           | 590                         | Red       | 5 racks of 96/case | Sterile |
| 3745                          | 3745-BR                   | Tube, ScrewTop, 500 $\mu$ L 2D, V-Bottom, No Caps        | 590                         |           | 5 racks of 96/case | Sterile |
| 3744-WP                       | 3744-WP-BR                | Tube, ScrewTop, 500 $\mu$ L 2D, WP, V-Bottom             | 590                         | Colorless | 5 racks of 96/case | Sterile |
| 3744-WP1D                     | 3744-WP1D-BR              | Tube, ScrewTop, 500 $\mu$ L 2D, WP/1D, V-Bottom          | 590                         | Colorless | 5 racks of 96/case | Sterile |
| 3745-WP                       | 3745-WP-BR                | Tube, ScrewTop, 500 $\mu$ L 2D, WP, V-Bottom, No caps    | 590                         |           | 5 racks of 96/case | Sterile |
| 3745-WP1D                     | 3745-WP1D-BR              | Tube, ScrewTop, 500 $\mu$ L 2D, WP/1D, V-Bottom, No caps | 590                         |           | 5 racks of 96/case | Sterile |
| 3743                          |                           | Tube, ScrewTop, 500 $\mu$ L 2D, V-Bottom                 | 590                         | Colorless | Bulk, 480/case     | Sterile |
| 3743RED                       |                           | Tube, ScrewTop, 500 $\mu$ L 2D, V-Bottom                 | 590                         | Red       | Bulk, 480/case     | Sterile |
| 3743YEL                       |                           | Tube, ScrewTop, 500 $\mu$ L 2D, V-Bottom                 | 590                         | Yellow    | Bulk, 480/case     | Sterile |
| 3743BLU                       |                           | Tube, ScrewTop, 500 $\mu$ L 2D, V-Bottom                 | 590                         | Blue      | Bulk, 480/case     | Sterile |
| 3743GRE                       |                           | Tube, ScrewTop, 500 $\mu$ L 2D, V-Bottom                 | 590                         | Green     | Bulk, 480/case     | Sterile |
| 3743WHI                       |                           | Tube, ScrewTop, 500 $\mu$ L 2D, V-Bottom                 | 590                         | White     | Bulk, 480/case     | Sterile |
| 3743PUR                       |                           | Tube, ScrewTop, 500 $\mu$ L 2D, V-Bottom                 | 590                         | Purple    | Bulk, 480/case     | Sterile |
| 3741                          | 3741-BR                   | Tube, ScrewTop, 1.0 mL 2D, V-Bottom                      | 940                         | Colorless | 5 racks of 96/case | Sterile |
| 3741RED                       | 3741RED-BR                | Tube, ScrewTop, 1.0 mL 2D, V-Bottom                      | 940                         | Red       | 5 racks of 96/case | Sterile |
| 3741YEL                       | 3741YEL-BR                | Tube, ScrewTop, 1.0 mL 2D, V-Bottom                      | 940                         | Yellow    | 5 racks of 96/case | Sterile |
| 3741BLU                       | 3741BLU-BR                | Tube, ScrewTop, 1.0 mL 2D, V-Bottom                      | 940                         | Blue      | 5 racks of 96/case | Sterile |
| 3741GRE                       | 3741GRE-BR                | Tube, ScrewTop, 1.0 mL 2D, V-Bottom                      | 940                         | Green     | 5 racks of 96/case | Sterile |
| 3741WHI                       | 3741WHI-BR                | Tube, ScrewTop, 1.0 mL 2D, V-Bottom                      | 940                         | White     | 5 racks of 96/case | Sterile |
| 3741PUR                       | 3741PUR-BR                | Tube, ScrewTop, 1.0 mL 2D, V-Bottom                      | 940                         | Purple    | 5 racks of 96/case | Sterile |
| 3741AMB                       | 3741AMB-BR                | Amber Tube, ScrewTop, 1.0mL 2D, V-Bottom                 | 940                         | Red       | 5 racks of 96/case | Sterile |
| 3742AMB                       | 3742AMB-BR                | Amber Tube, ScrewTop, 1.0mL 2D, V-Bottom                 | 940                         |           | 5 racks of 96/case | Sterile |
| 3742                          | 3742-BR                   | Tube, ScrewTop, 1.0 mL 2D, V-Bottom, No Caps             | 940                         |           | 5 racks of 96/case | Sterile |
| 3741-WP                       | 3741-WP-BR                | Tube, ScrewTop, 1.0 mL 2D, WP, V-Bottom                  | 940                         | Colorless | 5 racks of 96/case | Sterile |
| 3741-WP1D                     | 3741-WP1D-BR              | Tube, ScrewTop, 1.0 mL 2D, WP/1D, V-Bottom               | 940                         | Colorless | 5 racks of 96/case | Sterile |
| 3742-WP                       | 3742-WP-BR                | Tube, ScrewTop, 1.0 mL 2D, WP, V-Bottom, No caps         | 940                         |           | 5 racks of 96/case | Sterile |
| 3742-WP1D                     | 3742-WP1D-BR              | Tube, ScrewTop, 1.0 mL 2D, WP/1D, V-Bottom, No caps      | 940                         |           | 5 racks of 96/case | Sterile |
| 3740                          |                           | Tube, ScrewTop, 1.0 mL 2D, V-Bottom                      | 940                         | Colorless | Bulk, 480/case     | Sterile |
| 3740RED                       |                           | Tube, ScrewTop, 1.0 mL 2D, V-Bottom                      | 940                         | Red       | Bulk, 480/case     | Sterile |
| 3740YEL                       |                           | Tube, ScrewTop, 1.0 mL 2D, V-Bottom                      | 940                         | Yellow    | Bulk, 480/case     | Sterile |
| 3740BLU                       |                           | Tube, ScrewTop, 1.0 mL 2D, V-Bottom                      | 940                         | Blue      | Bulk, 480/case     | Sterile |
| 3740GRE                       |                           | Tube, ScrewTop, 1.0 mL 2D, V-Bottom                      | 940                         | Green     | Bulk, 480/case     | Sterile |
| 3740WHI                       |                           | Tube, ScrewTop, 1.0 mL 2D, V-Bottom                      | 940                         | White     | Bulk, 480/case     | Sterile |
| 3740PUR                       |                           | Tube, ScrewTop, 1.0 mL 2D, V-Bottom                      | 940                         | Purple    | Bulk, 480/case     | Sterile |

## Sterile ScrewTop Tube Caps

| Cat. No. | Description               | Cap Color | Qty/Case           | Cat. No. | Description         | Cap Color | Qty/Case  |
|----------|---------------------------|-----------|--------------------|----------|---------------------|-----------|-----------|
| 4906     | Tray, ScrewTop Cap, Empty |           | 5 trays            | 4470     | Caps, ScrewTop Tube | Colorless | Bulk, 500 |
| 4477     | Tray, ScrewTop Cap        | Colorless | 5 trays of 96 caps | 4470RED  | Caps, ScrewTop Tube | Red       | Bulk, 500 |
| 4477RED  | Tray, ScrewTop Cap        | Red       | 5 trays of 96 caps | 4470YEL  | Caps, ScrewTop Tube | Yellow    | Bulk, 500 |
| 4477YEL  | Tray, ScrewTop Cap        | Yellow    | 5 trays of 96 caps | 4470BLU  | Caps, ScrewTop Tube | Blue      | Bulk, 500 |
| 4477BLU  | Tray, ScrewTop Cap        | Blue      | 5 trays of 96 caps | 4470GRE  | Caps, ScrewTop Tube | Green     | Bulk, 500 |
| 4477GRE  | Tray, ScrewTop Cap        | Green     | 5 trays of 96 caps | 4470WHI  | Caps, ScrewTop Tube | White     | Bulk, 500 |
| 4477WHI  | Tray, ScrewTop Cap        | White     | 5 trays of 96 caps | 4470PUR  | Caps, ScrewTop Tube | Purple    | Bulk, 500 |
| 4477PUR  | Tray, ScrewTop Cap        | Purple    | 5 trays of 96 caps |          |                     |           |           |

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