## Brooks 2D Data-Matrix Barcoded Tubes

From Brooks life sciences

## STATEMENT OF CODE UNIQUENESS

Brooks, along with several other manufacturers, provides a range of storage tubes marked on the bottom with a Data-Matrix 2D barcode. Also, in common with other manufacturers, Brooks guarantees that within our range of FluidX 2D labelled tubes we will never duplicate a number therefore ensuring that each tube has a unique barcode sequence (I.D.) and therefore a guaranteed chain of custody. However an issue arises when a customer is presented with a "mixed population" of tubes i.e. where there are tubes from two or more manufacturers. This situation most commonly presents itself when two different groups collaborate, a merger occurs, or when a user wishes to change their supplier of 2D tubes. Since, in general, there is no agreement between manufacturers of 2D tubes there is the possibility that two tubes from different manufacturers may have the same numeric code. Clearly this could cause a major issue in that it would then be impossible to positively identify the content of each tube.

| Brands | Standard 2D Structure | Code Type | Example | Standard 1D Rack Structure | Example | Do they offer Customized Tube Codes? | Other info |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Brooks FluidX Jacket Tubes | $\begin{aligned} & 2 \text { letters + } 8 \\ & \text { digits } \end{aligned}$ | Black on White | FD03119999 | $\begin{aligned} & 2 \text { letters + } 8 \\ & \text { digits } \end{aligned}$ | SA00188129 | Yes - either custom prefix or complete custom coding | Racks also available with custom prefix or complete custom coding |
| Brooks FluidX <br> Non-Jacket <br> Tubes | 10 digits | Black on White <br> * White on Black optional | 1018221893 | 2 letters + 8 digits <br> OR <br> 8 digits | SA00370832 <br> 50087083 | Yes - complete custom numerical coding | Non-coded \& alphanumeric coding for tubes also available. Racks available with custom prefix coding or complete custom coding |
| Brooks REMP | 10 digits | White on Black | 2011795017 | $\begin{aligned} & \text { REMP + } 8 \\ & \text { digits } \end{aligned}$ | REMP20257885 | Yes | Racks available with custom coding |
| ThermoScientific Nunc | 10 digits | White on Black | NUXX11111C | 10 digits | NUXX11111C | No | Unique $14 \times 14$ array 2D code |
| Thermo Matrix | 10 digits | White on Black | 0225276533 | $\begin{aligned} & 2 \text { letters + } 8 \\ & \text { digits } \end{aligned}$ | TS00060318 | Yes | Can encode alphanumeric 2D barcodes on a $12 \times 12$ barcode |
| LVL <br> Technologies | $\begin{aligned} & 2 \text { letters + } 10 \\ & \text { digits } \end{aligned}$ | White on Black | LVL1004218212 | $\begin{aligned} & 3 \text { letters + } 9 \\ & \text { digits } \end{aligned}$ | LVL100040322 | Yes |  |
| Micronic | 10 digits | White on Black | 8006670199 | 10 digits | 8000078756 | Yes | Customized 2D Data-Matrix codes have a $14 \times 14$ symbol size in $96-$ - 48 - and 24 -well tube format. |
| Greiner | $\begin{aligned} & 1 \text { letter }+9 \\ & \text { digits } \end{aligned}$ | White on Black | G800598865 | $\begin{aligned} & 1 \text { letter }+9 \\ & \text { digits } \end{aligned}$ | G900006256 | Yes | Symbol size of $12 \times 12$ allows for 10 digits or 6 alphanumeric. A size of $14 \times 14$ allows 16 digits or 10 alphanumeric. |
| Brooks 4titude <br> - All semi or fully-skirted Microplates |  | Code 128 |  | $4 \mathrm{~T}+6$ digits | 4T123456 | Yes | Custom 1D available - allow up to 10 digits of complete custom |
| Brooks 4titude <br> - Random <br> Access Plates | 8 digits | White on Black | 00005111 | $4 \mathrm{~T}+6$ digits | 4T123456 | Yes | Custom 2D available - contact 4titude for more information Custom 1D available - allow up to 10 digits of complete custom |

Table 1 - Barcode information for multiple suppliers

Cryopreservation \& Cold Chain Solutions

Informatics \& Technical Solutions

Sample Storage, Lab Services \& Transport

Sample Consumables \& Instruments

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## READING ALL BARCODE INFORMATION WITH INTELLICODE ${ }^{\text {TM }}$

A data matrix looks like a square group of dots. The more dots you have the more information you can store. Part of this information is error correction. This means that if the code is partly damaged it can still be decoded.

The FluidX tube uses a black on white 2D barcode as standard. This means it has a white border to improve the quiet-zone around the edge of the tube. The quiet zone is important as it helps the reading software separate the code from the background.

To cope with all manufacturers' tubes, the reader software needs to be robust to deal with multiple dimensions \& multiple colours. Intellicode's decoder is fully programmable to cope with all manufacturers' tube dimensions and colours.


Intellicode Software

The default "out of the box" setting should read any colour code using any $10 \times 10-14 \times 14$ dimensions, covering most manufacturers' datamatrix codes.

Even mixed racks of multiple manufacturer tube types are often no problem for the Intellicode ${ }^{T M}$.


Tube Coding Options

## Brooks Tube and Rack Readers..



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ORBIT $^{\text {TM }}$
IMPRESSION™

Cryopreservation \& Cold Chain Solutions

Informatics \& Technical Solutions

Sample Storage, Lab Services \& Transport

Sample Consumables
\& Instruments


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