## Thermo Scientific<sup>™</sup> Oxoid<sup>™</sup> M.I.C.Evaluator<sup>™</sup> (M.I.C.E.<sup>™</sup>) Strips Step-by-Step Guide



#### Inoculate agar plate

Inoculate the appropriate agar plate by swabbing the test organism in at least three different directions, taking care to ensure no gaps are left in the deposited inoculum.



#### **Open the sachet**

Open the sachet by peeling apart at the corners indicated by the blue arrows.



## Remove the strip

Remove the strip with sterile forceps by holding the black M.I.C.E. Strip handle at the top of the strip.



### Apply the strip

Apply the strip by placing the end with the lowest antimicrobial concentration onto the plate first. Ensure the scale is facing up and the antibiotic gradient is in contact with the agar. Note: The M.I.C.E. Strip will not work if it is placed upside down.



# Roll the strip onto the agar surface

Carefully roll the strip onto the agar surface to ensure good contact along the entire length of the strip. Alternatively, carefully place the lower end of the M.I.C.E. Strip onto the agar and gently drop the strip. Using sterile forceps, gently smooth the strip onto the agar. Take care not to move the strip once in position. If air bubbles become trapped under the M.I.C.E. Strip, gently ease them to the edge using sterile forceps, taking care not to move the strip on the agar. When removing air bubbles start at the lowest concentration and work up. This avoids pushing a high concentration of antibiotic down the strip. If the M.I.C.E Strip is placed in an incorrect position, do not move the strip, as the antimicrobial will immediately begin to diffuse into the agar. Use a freshly inoculated plate and new strip.



## Incubate the plates

Incubate the plates in an inverted position under conditions appropriate for the test organism. The plates should be incubated within 15 minutes after applying the strip to avoid pre-diffusion of the antimicrobial before the organism starts to grow which may result in a false, low minimum inhibitory concentration (MIC).



### **Read the MIC**

The MIC is easily read as the value where the growth of the organism touches the strip. If the growth intersects on the line between two sections then the MIC is read as the value in the lower section. If there is growth along the entire length of the strip, the MIC should be read as greater than or equal to the highest value shown on the M.I.C.E. scale. If growth is inhibited all around the strip, the MIC should be read as less than the lowest value on the M.I.C.E. scale.





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## M.I.C.Evaluator – Reading Half Step Values



If the accuracy of half steps is required, then the black sections on the strip should be used as well as the white. If the growth touches the strip on a black section, the MIC result is determined as the midpoint between the adjoining white sections, as shown.

## **M.I.C.Evaluator Templates and Instructions for Use**



## **Important Notes:**

- For non-fastidious strains, generally six M.I.C.E. Strips may be used on a 140mm agar plate
- For fastidious or sensitive strains, it is recommended that only one M.I.C.E. Strip is applied to a 90mm agar plate and four to five to a 140mm agar plate
- No more than six M.I.C.E. Strips should be applied to 140mm agar plates
- No more than two M.I.C.E. Strips should be applied to 90mm agar plates

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