

Australian Standard™

Cleanrooms, workstations, safety cabinets and pharmaceutical isolators—Methods of test

Method 26: Determination of air barrier containment of laminar flow safety cabinets—Potassium iodide discus test

PREFACE

This Standard was prepared by the Australian members of Joint Standards Australia/Standards New Zealand Committee ME-060, Controlled Environment. After consultation with stakeholders in both countries, Standards Australia and Standards New Zealand decided to develop this Standard as an Australian Standard rather than Australian/New Zealand Standard.

In producing this Standard reference was made to BS EN 12469:2000, *Biotechnology—Performance criteria for microbiological safety cabinets*. This test method is technically identical with the corresponding test method that forms part of BS EN 12469.

FOOTWORD

No open-fronted safety cabinet will give complete protection.

The minimum value of aperture protector factor that can be assessed depends upon the sensitivity of the test, e.g. the size of the challenge (N), the sampling rate, and the smallest number of particles recovered that can be reliably differentiated from background contamination.

In this test method the aperture protection factor, A^{pf} , is calculated separately from each filter membrane using the following equation:

$$A^{pf} = 6.2 \times 10^6 / n$$

where

V = the sampling flow rate, expressed in cubic decimetres per minute (dm^3/min)

n = the number of spots on the filter membrane

When calculating A^{pf} , if there was one spot on the filter membrane, the protection factor would be 6.2×10^6 . If there were no spots on the filter membrane this would indicate that the protection factor was higher than this and the protection factor would be recorded as $A^{pf} > 6.2 \times 10^6$.

The number of potassium iodide particles liberated, N , is calculated using the following equation:

$$N = 3.1 \times 10^7 \times M$$