ISO 13629-1:2025-05 (E)

Textiles - Determination of antifungal activity of textile products - Part 1: Luminescence method

Contents

Page

Foreword v

Introduction vi

1 Scope 1

2 Normative references 1

3 Termsanddefinitions 1

4 Principle 2

5 Warning 2

6 Reference fungi 2

7 Apparatus 2

8 Reagents and culture media 4
8.1 General 4
8.2 Pure water 4
8.3 Anionic surfactant 4
8.4 Luminescent reagents, reagents and buffer solutions 4
8.4.1 General 4
8.4.2 ATP standard stock solution (1 × 10-3 mol/l) referred to as ATP standard hereafter 4
8.4.3 Buffer solution for ATP luminescent reagent 4
8.4.4 ATP luminescent reagent 5
8.4.5 ATP extraction reagent 5
8.4.6 ATP eliminating reagent 5
8.4.7 Physiological saline solution 5
8.4.8 Sterilized water containing anionic surfactant 6
8.5 Culture medium 6
8.5.1 General 6
8.5.2 Sabouraud dextrose broth (SDB) 6
8.5.3 Potato dextrose agar (PDA) 6
8.5.4 Slant culture 6
8.5.5 Sabouraud dextrose agar (SDA) 6

9 Fungus preservation and use 7
9.1 Fungus preservation 7
9.2 Use of fungus 7

10 Spore suspension 7
10.1 General 7
10.2 Suspending spores in culture media 8
10.3 Collection and dispersion of spore suspension from a culture medium 8
10.4 Filtering to remove hyphae and spore threads 8
10.5 Using centrifugal separation and resuspension to remove supernatant 8
10.6 Confirming the concentration of spore suspension 9
10.7 Adjusting spore suspension for testing 9

11 Preparing the ATP calibration curve 9

12 Testing method 10
12.1 Preparation of test specimens and inoculation 10
12.1.1 General 10
12.1.2 Absorption method 10
12.1.3 Transfer method 12
12.2 Incubation 12
12.2.1 Absorption method 12
12.2.2 Transfer method 12

13 Measurement of luminescence intensity 12

13.1 Absorption method 12
13.2 Transfer method 14

14 Calculation 14
14.1 Judgment of test effectiveness 14
14.2 Calculation of antifungal activity value 15

15 Judgementofantifungalefficacy 15

16 Test report 15

Annex A (normative) Fungi used in this document 16

Annex B (informative)Antifungalefficacy 17

Bibliography 18