

# ISO 16187:2025-02 (E)

## Footwear and footwear components - Test method to assess antibacterial activity

---

| <b>Contents</b>                                  |  | <b>Page</b> |
|--|--|-------------|
| Foreword .....                                   |  | iv          |
| 1  | Scope .....  | 1           |
| 2  | Normative references .....   | 1           |
| 3  | Terms and definitions .....  | 1           |
| 4  | Principle .....  | 1           |
| 5  | Safety .....   | 2           |
| 6  | Apparatus .....  | 2           |
| 7  | Reagents and culture medium .....  | 2           |
| 7.1  | General .....  | 2           |
| 7.2  | Water .....  | 3           |
| 7.3  | Nutrient broth (NB) .....  | 3           |
| 7.3.1  | Composition .....  | 3           |
| 7.3.2  | Preparation .....  | 3           |
| 7.4  | Nutrient agar (NA) .....   | 3           |
| 7.4.1  | Composition .....  | 3           |
| 7.4.2  | Preparation .....  | 3           |
| 7.5  | Tryptic soy broth (TSB) .....  | 4           |
| 7.5.1  | Composition .....  | 4           |
| 7.5.2  | Preparation .....  | 4           |
| 7.6  | Tryptone soy agar (TSA) .....  | 4           |
| 7.6.1  | Composition .....  | 4           |
| 7.6.2  | Preparation .....  | 4           |
| 7.7  | Soybean casein digest broth with lecithin and polyoxyethylene medium (SCDLP) ..... | 4           |
| 7.7.1  | Composition .....  | 4           |
| 7.7.2  | Preparation .....  | 5           |
| 7.8  | Sodium chloride solution (physiological saline) .....                              | 5           |
| 7.8.1  | Composition .....  | 5           |
| 7.8.2  | Preparation .....  | 5           |
| 8  | Test microorganisms .....  | 5           |
| 8.1  | Test strains .....   | 5           |
| 8.2  | Storage of strains .....   | 5           |
| 9  | Preparation of test inoculums .....  | 6           |
| 10   | Preparation of test samples .....  | 6           |
| 10.1   | General .....  | 6           |
| 10.2   | Test specimen .....  | 6           |
| 10.3   | Pre-treatment of the test specimen .....   | 6           |
| 11   | Test procedure .....   | 6           |
| 12   | Expression of results .....  | 7           |
| 12.1   | Calculation of the number of viable bacteria .....                                 | 7           |
| 12.2   | Judgement of test effectiveness .....  | 7           |
| 12.3   | Calculation of antibacterial activity ratio .....                                  | 8           |
| 13   | Test report .....  | 8           |
| Annex A (normative) Static challenge test .....  |  | 10          |
| Annex B (normative) Film contact method .....    |  | 11          |
| Annex C (normative) Dynamic challenge test ..... |  | 13          |
| Bibliography .....                               |  | 14          |