

ISO 14644-1:2015-12 (E)

Cleanrooms and associated controlled environments - Part 1: Classification of air cleanliness by particle concentration

| Contents | | Page |
|------------------------------|---|-------------|
| Foreword | | iv |
| Introduction | | v |
| 1 | Scope | 1 |
| 2 | Normative references | 1 |
| 3 | Terms and definitions | 1 |
| 3.1 | General | 1 |
| 3.2 | Airborne particles | 2 |
| 3.3 | Occupancy states | 3 |
| 3.4 | Testing instrumentation (see Annex F) | 3 |
| 3.5 | Instrument specifications | 4 |
| 4 | Classification | 4 |
| 4.1 | Occupancy state(s) | 4 |
| 4.2 | Particle size(s) | 4 |
| 4.3 | ISO Class number | 4 |
| 4.4 | Designation | 5 |
| 4.5 | Intermediate decimal cleanliness classes and particle size thresholds | 5 |
| 5 | Demonstration of compliance | 6 |
| 5.1 | Principle | 6 |
| 5.2 | Testing | 6 |
| 5.3 | Airborne particle concentration evaluation | 6 |
| 5.4 | Test report | 6 |
| Annex A (normative) | Reference method for classification of air cleanliness by particle concentration | 8 |
| Annex B (informative) | Examples of classification calculations | 13 |
| Annex C (informative) | Counting and sizing of airborne macroparticles | 22 |
| Annex D (informative) | Sequential sampling procedure | 27 |
| Annex E (informative) | Specification of intermediate decimal cleanliness classes and particle size thresholds | 34 |
| Annex F (informative) | Test instruments | 36 |
| Bibliography | | 37 |