

DIN EN ISO 14644-18:2024-01 (E)

Cleanrooms and associated controlled environments - Part 18: Assessment of suitability of consumables (ISO 14644-18:2023)

| Contents | | Page |
|-------------------------|--|-------------|
| European foreword | | 4 |
| Foreword | | 5 |
| Introduction | | 6 |
| 1 | Scope | 7 |
| 2 | Normative references | 8 |
| 3 | Terms and definitions | 8 |
| 4 | Description and cleanroom suitability properties of consumables | 11 |
| 4.1 | Types of consumables | 11 |
| 4.2 | Properties of consumables | 11 |
| 4.2.1 | General | 11 |
| 4.2.2 | Functional performance properties | 11 |
| 4.2.3 | Cleanliness attributes | 12 |
| 4.2.4 | Special properties | 12 |
| 4.3 | Intended use | 12 |
| 4.4 | Consumable use | 13 |
| 4.4.1 | Single-use | 13 |
| 4.4.2 | Multiple-use | 13 |
| 5 | Contaminant of concern | 13 |
| 5.1 | General | 13 |
| 5.2 | Emission of contaminants into the air | 13 |
| 5.3 | Surface contamination by contact transfer | 13 |
| 5.4 | Surface contamination via liquids | 13 |
| 6 | Cleanroom suitability assessment prerequisites | 14 |
| 6.1 | General | 14 |
| 6.2 | Considerations | 14 |
| 6.3 | Associated risks | 14 |
| 6.4 | Requirements, properties and cleanliness attributes | 14 |
| 6.5 | Sustainability | 15 |
| 7 | Customer requirements | 15 |
| 7.1 | General | 15 |
| 7.2 | Description and intended use | 15 |
| 7.3 | Requirements for consumable assessment | 15 |
| 7.3.1 | Functional performance properties | 15 |
| 7.3.2 | Cleanliness attributes | 16 |
| 7.3.3 | Special properties | 16 |
| 8 | Consumable properties as designed by the supplier | 17 |
| 8.1 | General | 17 |
| 8.2 | Description and designed use | 17 |
| 8.3 | Consumable properties and attributes | 17 |
| 8.3.1 | Functional performance properties | 17 |
| 8.3.2 | Cleanliness attributes | 17 |
| 8.3.3 | Special properties | 18 |
| 8.4 | Supplier quality documentation | 18 |

| | | |
|-----------|--|-----------|
| 9 | Assessment | 18 |
| | 9.1 General..... | 18 |
| | 9.2 Initial comparison..... | 19 |
| | 9.3 Detailed comparison..... | 19 |
| | 9.4 Cleanroom suitability assessment..... | 19 |
| | 9.5 Implementation..... | 19 |
| 10 | Documentation | 20 |
| | 10.1 General..... | 20 |
| | 10.2 Initial customer's documentation..... | 20 |
| | 10.3 Supplier documentation..... | 20 |
| | 10.4 Assessment documentation..... | 21 |
| | Annex A (informative) Personal and non-personal consumables | 22 |
| | Annex B (informative) Impact of consumables on cleanroom cleanliness levels | 24 |
| | Annex C (informative) Test methods | 28 |
| | Annex D (informative) Worked examples | 35 |
| | Bibliography | 43 |