

ISO 14644-18:2023-10 (E)

Cleanrooms and associated controlled environments - Part 18: Assessment of suitability of consumables

Contents		Page
Foreword	.....	v
Introduction	.....	vi
1 Scope	.....	1
2 Normative references	.....	2
3 Terms and definitions	.....	2
4 Description and cleanroom suitability properties of consumables	.....	5
4.1 Types of consumables	.....	5
4.2 Properties of consumables	.....	5
4.2.1 General	.....	5
4.2.2 Functional performance properties	.....	5
4.2.3 Cleanliness attributes	.....	6
4.2.4 Special properties	.....	6
4.3 Intended use	.....	6
4.4 Consumable use	.....	7
4.4.1 Single-use	.....	7
4.4.2 Multiple-use	.....	7
5 Contaminant of concern	.....	7
5.1 General	.....	7
5.2 Emission of contaminants into the air	.....	7
5.3 Surface contamination by contact transfer	.....	7
5.4 Surface contamination via liquids	.....	7
6 Cleanroom suitability assessment prerequisites	.....	8
6.1 General	.....	8
6.2 Considerations	.....	8
6.3 Associated risks	.....	8
6.4 Requirements, properties and cleanliness attributes	.....	8
6.5 Sustainability	.....	9
7 Customer requirements	.....	9
7.1 General	.....	9
7.2 Description and intended use	.....	9
7.3 Requirements for consumable assessment	.....	9
7.3.1 Functional performance properties	.....	9
7.3.2 Cleanliness attributes	.....	10
7.3.3 Special properties	.....	10
8 Consumable properties as designed by the supplier	.....	11
8.1 General	.....	11
8.2 Description and designed use	.....	11
8.3 Consumable properties and attributes	.....	11
8.3.1 Functional performance properties	.....	11
8.3.2 Cleanliness attributes	.....	11
8.3.3 Special properties	.....	12
8.4 Supplier quality documentation	.....	12
9 Assessment	.....	12
9.1 General	.....	12
9.2 Initial comparison	.....	13

9.3	Detailed comparison.....	13
9.4	Cleanroom suitability assessment.....	13
9.5	Implementation.....	13
10	Documentation.....	14
10.1	General.....	14
10.2	Initial customer's documentation.....	14
10.3	Supplier documentation.....	14
10.4	Assessment documentation.....	15
Annex A	(informative) Personal and non-personal consumables.....	16
Annex B	(informative) Impact of consumables on cleanroom cleanliness levels.....	18
Annex C	(informative) Test methods.....	22
Annex D	(informative) Worked examples.....	29
Bibliography	.....	37