

---

---

**Cleanrooms and associated controlled environments —**

**Part 3:  
Test methods**

*Salles propres et environnements maîtrisés apparentés —  
Partie 3: Méthodes d'essai*





**COPYRIGHT PROTECTED DOCUMENT**

© ISO 2019

All rights reserved. Unless otherwise specified, or required in the context of its implementation, no part of this publication may be reproduced or utilized otherwise in any form or by any means, electronic or mechanical, including photocopying, or posting on the internet or an intranet, without prior written permission. Permission can be requested from either ISO at the address below or ISO's member body in the country of the requester.

ISO copyright office  
CP 401 • Ch. de Blandonnet 8  
CH-1214 Vernier, Geneva  
Phone: +41 22 749 01 11  
Fax: +41 22 749 09 47  
Email: [copyright@iso.org](mailto:copyright@iso.org)  
Website: [www.iso.org](http://www.iso.org)

Published in Switzerland

# Contents

Page

<b>Foreword</b> .....	<b>iv</b>
<b>Introduction</b> .....	<b>v</b>
<b>1 Scope</b> .....	<b>1</b>
<b>2 Normative references</b> .....	<b>1</b>
<b>3 Terms and definitions</b> .....	<b>1</b>
3.1 General terms.....	1
3.2 Terms related to airborne particles.....	3
3.3 Terms related to air filters and systems.....	3
3.4 Terms related to airflow and other physical states.....	4
3.5 Terms related to electrostatic measurement.....	5
3.6 Terms related to measuring apparatus and measuring conditions.....	5
3.7 Terms related to occupancy states.....	6
<b>4 Test procedures</b> .....	<b>6</b>
4.1 Cleanroom tests.....	6
4.1.1 General.....	6
4.1.2 Supporting tests.....	7
4.2 Principle.....	7
4.2.1 Air pressure difference test.....	7
4.2.2 Airflow test.....	7
4.2.3 Airflow direction test and visualization.....	8
4.2.4 Recovery test.....	8
4.2.5 Temperature test.....	8
4.2.6 Humidity test.....	8
4.2.7 Installed filter system leakage tests.....	8
4.2.8 Containment leak test.....	8
4.2.9 Electrostatic and ion generator tests.....	8
4.2.10 Particle deposition test.....	8
4.2.11 Segregation test.....	9
<b>5 Test reports</b> .....	<b>9</b>
<b>Annex A (informative) Choice of supporting tests and checklist</b> .....	<b>10</b>
<b>Annex B (informative) Supporting test methods</b> .....	<b>14</b>
<b>Annex C (informative) Test apparatus</b> .....	<b>44</b>
<b>Bibliography</b> .....	<b>52</b>