

DIN CEN/TS 17441:2020-07 (E)

Laboratory installations - Ventilation systems in laboratories

| Contents | | Page |
|---|---|-------------|
| European foreword | | 3 |
| Introduction | | 4 |
| 1 | Scope | 5 |
| 2 | Normative references | 5 |
| 3 | Terms and definitions | 5 |
| 4 | Tasks of the ventilation system | 9 |
| 5 | Design and construction of ventilation systems | 10 |
| 5.1 | General | 10 |
| 5.2 | Design criteria | 11 |
| 5.3 | Air volumes | 12 |
| 5.4 | Design parameter | 13 |
| 5.5 | Airflow within the room | 15 |
| 5.6 | Room air quality | 15 |
| 6 | Requirements for supply air systems | 15 |
| 6.1 | General | 15 |
| 6.2 | Supply air system | 16 |
| 6.3 | Ratio supply air to extract air | 16 |
| 7 | Requirements for extract air systems | 16 |
| 7.1 | Extract air layout | 16 |
| 7.2 | Extract air ducts | 17 |
| 7.3 | Arrestment and filter systems | 19 |
| 7.4 | Exhaust fans | 19 |
| 7.5 | Maintenance and repair | 19 |
| 7.6 | Explosion protection | 19 |
| 8 | Sound pressure level | 20 |
| 9 | Ventilation systems in microbiology laboratories | 20 |
| 10 | Ventilation system information and laboratory labelling | 20 |
| Annex A (informative) National regulations on ventilation | | 21 |
| A.1 | General | 21 |
| A.2 | France | 21 |
| A.3 | The Netherlands | 21 |
| A.4 | Germany | 21 |
| A.5 | Spain | 22 |
| Bibliography | | 23 |