

DIN EN 12604:2021-05 (E)

Industrial, commercial and garage doors and gates - Mechanical aspects - Requirements and test methods (includes Amendment :2020)

| Contents | | Page |
|-------------------------|---|-------------|
| European foreword | | 4 |
| Introduction | | 5 |
| 1 | Scope | 6 |
| 2 | Normative references | 6 |
| 3 | Terms and definitions | 7 |
| 4 | Safety requirements and/or protective measures | 7 |
| 4.1 | General | 7 |
| 4.2 | Design and construction | 7 |
| 4.2.1 | Operability | 7 |
| 4.2.2 | Glazing | 7 |
| 4.3 | Protection against unintentional and uncontrolled movements | 7 |
| 4.3.1 | Guides and end stops | 7 |
| 4.3.2 | Unintentional movements due to wind | 8 |
| 4.3.3 | Uncontrolled movements of vertically operating doors | 8 |
| 4.3.4 | Safeguarding against dropping of vertically operating door leaves | 8 |
| 4.3.5 | Safeguarding against dropping of hinged doors | 9 |
| 4.4 | Forces for manual operation | 9 |
| 4.5 | Devices for manual operation | 9 |
| 4.6 | Finger protection | 9 |
| 4.7 | Specific requirements for parts used in suspension and balancing systems | 9 |
| 4.7.1 | General | 9 |
| 4.7.2 | Springs | 10 |
| 4.7.3 | Counterweights | 10 |
| 4.7.4 | Steel wire ropes, chains, straps | 10 |
| 4.8 | Pass doors | 11 |
| 4.9 | Additional requirements for doors operating by gravity or other self-closing mechanism .. | 11 |
| 5 | Verification of the safety requirements and/or protective measures | 11 |
| 5.1 | General | 11 |
| 5.2 | Design and construction | 12 |
| 5.2.1 | Operability | 12 |
| 5.2.2 | Glazing | 12 |
| 5.3 | Protection against unintentional and uncontrolled movements | 12 |
| 5.3.1 | Guides and end stops | 12 |
| 5.3.2 | Unintentional movements due to wind | 12 |
| 5.3.3 | Uncontrolled movements of vertically operating doors | 12 |
| 5.3.4 | Safeguarding against dropping of vertically operating door leaves | 13 |
| 5.3.5 | Safeguarding against dropping of hinged doors | 13 |
| 5.4 | Forces for manual operation | 13 |
| 5.5 | Devices for manual operation | 13 |
| 5.6 | Finger protection | 13 |
| 5.7 | Specific requirements for parts used in suspension and balancing systems | 14 |
| 5.7.1 | Springs | 14 |
| 5.7.2 | Counterweights | 14 |
| 5.7.3 | Steel wire ropes, chains, straps | 14 |
| 5.8 | Pass doors | 14 |

| | | |
|------------|--|-----------|
| 5.9 | Warning signs and/or devices | 14 |
| 6 | !Information for Use | 14 |
| 7 | !Marking | 16 |
| | Annex A(informative) Guidelines for a safe construction | 17 |
| | Annex B(informative) Examples of mechanical protection and safety distances | 18 |
| | Annex C(informative) Logbook | 19 |