

DIN EN ISO 16139:2019-12 (English)

Industrial valves - Gate valves of thermoplastics materials (ISO 16139:2006 + Amendment 1:2019) (includes Amendment :2019)

| Contents | Page |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------|
| European foreword..... | 4 |
| [A1] European foreword to Amendment A1 [A1] | 5 |
| [A1] Annex ZA (informative) Relationship between this European Standard and the essential requirements of Directive 2014/68/EU (Pressure Equipment Directive) aimed to be covered [A1] | 6 |
| [A1] Foreword to Amendment 1 [A1] | 7 |
| 1 Scope | 8 |
| 2 Normative references | 8 |
| 3 Terms and definitions | 9 |
| 4 Requirements | 11 |
| 4.1 Design | 11 |
| 4.1.1 Valve function | 11 |
| 4.1.2 Design characteristics | 11 |
| 4.1.3 Types of valve end connection | 11 |
| 4.2 Materials | 12 |
| 4.2.1 Materials for the body and bonnet/cover | 12 |
| 4.2.2 Materials for other valve components | 12 |
| 4.3 Pressure/temperature rating | 12 |
| 4.4 Dimensions | 13 |
| 4.4.1 Face-to-face dimensions | 13 |
| 4.4.2 Joint dimensions of the valve end connections | 13 |
| 4.5 Operation | 14 |
| 4.6 Functional characteristics | 14 |
| 4.6.1 Design strength | 14 |
| 4.6.2 Flow characteristics | 14 |
| 4.6.3 Seat and packing/shell leaktightness | 14 |
| 4.6.4 Operating torque | 14 |
| 4.6.5 Permissible manual forces | 14 |
| 4.6.6 Durability | 15 |
| 4.7 Manufacture | 15 |
| 4.7.1 Control of the manufacture of body and bonnet | 15 |
| 4.7.2 Permanent jointing | 15 |
| 4.8 Other requirements | 15 |
| 4.8.1 Wear | 15 |
| 4.8.2 Corrosion resistance or other chemical attack | 15 |
| 4.8.3 Operating instructions | 15 |
| 5 Test procedures | 16 |
| 5.1 Documentation of test results | 16 |
| 5.2 Initial type tests | 16 |
| 5.2.1 General | 16 |
| 5.2.2 Testing of materials | 16 |
| 5.2.3 Shell test | 16 |

| | | |
|-------|--------------------------------------------------------------|----|
| 5.2.4 | Seat leaktightness test | 16 |
| 5.2.5 | Long-term behaviour test of the complete valve..... | 16 |
| 5.2.6 | Durability test..... | 17 |
| 5.2.7 | Operating torque test..... | 17 |
| 5.2.8 | Final test..... | 17 |
| 6 | Declaration of compliance..... | 17 |
| 7 | Designation | 17 |
| 8 | Marking and preparation for storage and transportation | 18 |
| 8.1 | Marking and documentation | 18 |
| 8.2 | Preparation for storage and transportation..... | 19 |
| | Annex A (informative) Procurement information | 20 |
| | Bibliography | 21 |