

ISO 9227:2022-11 (E)

Corrosion tests in artificial atmospheres - Salt spray tests

| Contents | | Page |
|--------------------|---|-------------|
| Foreword | | v |
| Introduction | | vi |
| 1 | Scope | 1 |
| 2 | Normative references | 1 |
| 3 | Terms and definitions | 2 |
| 4 | Principle | 2 |
| 5 | Test solutions | 2 |
| 5.1 | Preparation of the sodium chloride solution | 2 |
| 5.2 | Preparation of each test solution with pH adjustment | 3 |
| 5.2.1 | pH of the salt solution | 3 |
| 5.2.2 | Neutral salt spray test | 3 |
| 5.2.3 | Acetic acid salt spray test | 3 |
| 5.2.4 | Copper-accelerated acetic acid salt spray test | 4 |
| 5.3 | Filtration | 4 |
| 6 | Apparatus | 4 |
| 6.1 | Component protection | 4 |
| 6.2 | Spray cabinet | 4 |
| 6.3 | Heater and temperature control | 4 |
| 6.4 | Spraying device | 4 |
| 6.5 | Collecting devices | 5 |
| 6.6 | Re-use | 6 |
| 7 | Method for evaluating cabinet corrosivity | 6 |
| 7.1 | General | 6 |
| 7.2 | Reference specimens | 6 |
| 7.3 | Arrangement of the reference specimens | 7 |
| 7.4 | Determination of mass loss (mass per area) | 7 |
| 7.5 | Satisfactory performance of cabinet | 8 |
| 8 | Test specimens | 8 |
| 9 | Arrangement of the test specimens | 8 |
| 10 | Operating conditions | 9 |
| 11 | Duration of tests | 9 |
| 12 | Treatment of test specimens after test | 10 |
| 12.1 | General | 10 |
| 12.2 | Non-organic coated test specimens: metallic and/or inorganic coated | 10 |
| 12.3 | Organic coated test specimens | 10 |
| 12.3.1 | Scribed organic coated test specimens | 10 |
| 12.3.2 | Organic coated but not scribed test specimens | 10 |
| 13 | Evaluation of results | 11 |

| | | |
|-----------|---|-----------|
| 14 | Test report | 11 |
| | Annex A (informative) Example schematic diagram of one possible design of spray cabinet with means for optional treating fog exhaust and drain | 13 |
| | Annex B (informative) Complementary method for evaluating cabinet corrosivity using zinc reference specimens | 15 |
| | Annex C (normative) Preparation of specimens with organic coatings for testing | 17 |
| | Annex D (informative) Required supplementary information for testing test specimens with organic coatings | 18 |
| | Annex E (informative) Examples of arrangement of the collecting devices | 19 |
| | Annex F (informative) Interlaboratory comparison for reference specimens | 21 |
| | Bibliography | 23 |