

DIN EN ISO 22970:2021-04 (E)

Paints and varnishes - Test method for evaluation of adhesion of elastic adhesives on coatings by peel test, peel strength test and tensile lap-shear strength test with additional stress by condensation test or cataplasm storage (ISO 2297 0:2019)

| Contents | Page |
|---|-----------|
| European foreword | 3 |
| Foreword | 4 |
| 1 Scope | 5 |
| 2 Normative references | 5 |
| 3 Terms and definitions | 5 |
| 4 Principle | 6 |
| 4.1 Adhesive strength test method A — Peel adhesion..... | 6 |
| 4.2 Adhesive strength test method B — Peel strength..... | 6 |
| 4.3 Adhesive strength test method C — Tensile lap-shear strength..... | 7 |
| 4.4 Conduction of the test..... | 7 |
| 5 Apparatus and test media | 7 |
| 5.1 Adhesive strength test method A — Peel adhesion..... | 7 |
| 5.2 Adhesive strength test method B — Peel strength..... | 8 |
| 5.3 Adhesive strength test method C — Tensile lap-shear strength..... | 8 |
| 5.4 Exposure method 1 — Condensation atmosphere with constant humidity..... | 9 |
| 5.5 Exposure method 2 — Cataplasm storage..... | 9 |
| 6 Sequence of adhesive strength tests A, B and C | 9 |
| 7 Preparation of specimens | 10 |
| 7.1 Preparation of test panels..... | 10 |
| 7.2 Adhesive strength test method A — Peel adhesion..... | 10 |
| 7.2.1 Bead shape..... | 10 |
| 7.2.2 Application of the adhesive bead..... | 11 |
| 7.3 Adhesive strength test method B — Peel strength..... | 14 |
| 7.4 Adhesive strength test method C — Tensile lap-shear strength..... | 15 |
| 8 Curing and exposure of specimens with applied adhesive | 18 |
| 8.1 Curing..... | 18 |
| 8.2 Reference value determination..... | 19 |
| 8.3 Exposure methods..... | 19 |
| 8.3.1 Exposure method 1 — Condensation atmosphere with constant humidity..... | 19 |
| 8.3.2 Exposure method 2 — Cataplasm storage..... | 19 |
| 9 Test procedure | 19 |
| 9.1 Adhesive strength test method A — Peel adhesion..... | 19 |
| 9.2 Adhesive strength test method B — Peel strength..... | 21 |
| 9.3 Adhesive strength test method C — Tensile lap-shear strength..... | 22 |
| 10 Expression of results | 22 |
| 10.1 Adhesive strength test method A — Peel adhesion..... | 22 |
| 10.2 Adhesive strength test method B — Peel strength..... | 23 |
| 10.3 Adhesive strength test method C — Tensile lap-shear strength..... | 24 |
| 11 Designation | 24 |
| 12 Precision | 25 |
| 13 Test report | 25 |
| Bibliography | 27 |