

DIN EN ISO/ASTM 52919:2025-12 (E)

Additive manufacturing - Qualification principles - Test methods for metal casting sand moulds (ISO/ASTM 52919:2025)

Contents

Page

| | |
|--|-----------|
| Foreword..... | iv |
| Introduction..... | v |
| 1 Scope..... | 1 |
| 2 Normative references..... | 1 |
| 3 Terms and definitions..... | 1 |
| 4 Standard practice for sampling specimens of AM-made sand moulds..... | 1 |
| 4.1 Factors causing uneven properties in an AM-made sand mould..... | 1 |
| 4.2 Sampling specimens of an AM-made sand mould..... | 2 |
| 5 Test methods applicable to evaluating an AM-made sand mould..... | 2 |
| 5.1 General..... | 2 |
| 5.2 Requirements for sampling test specimens of an AM-made sand mould..... | 2 |
| 5.3 Applicable test methods..... | 3 |
| 5.3.1 General..... | 3 |
| 5.3.2 Tensile strength test..... | 3 |
| 5.3.3 Bending/transverse strength test..... | 4 |
| 5.3.4 Gas permeability test..... | 4 |
| 5.3.5 Thermal expansion test..... | 4 |
| 6 Documentation..... | 5 |
| 6.1 General..... | 5 |
| 6.2 Purchasing an AM-made sand mould..... | 5 |
| 6.3 Verifying AM machine performance..... | 5 |
| Annex A (normative) Identifier and orientation index of a specimen..... | 7 |
| Annex B (informative) Example of sampling test specimens and reporting table..... | 8 |
| Bibliography..... | 13 |