

ISO/ASTM 52919:2025-09 (E)

Additive manufacturing - Qualification principles - Test methods for metal casting sand moulds

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