

ISO 5425:2023-08 (E)

Specifications for use of poly(lactic acid) based filament in additive manufacturing applications

Contents		Page
Foreword		iv
Introduction		v
1	Scope	1
2	Normative references	1
3	Terms and definitions	1
4	Labelling	2
5	Requirements	3
5.1	Appearance	3
5.2	Specification	3
5.2.1	Diameter and ovality tolerance	3
5.2.2	Net mass and tolerance	3
5.2.3	Volatile matter limit	3
5.2.4	Biobased (carbon) content	4
5.2.5	Carbon and environmental footprint	4
5.3	Property requirements	4
5.4	Limit quantity of substances and impurities	4
6	Test methods	4
6.1	Conditioning	4
6.2	Appearance of filament material	4
6.3	Diameter and ovality of filament material	4
6.4	Net mass and tolerance of filament material	5
6.5	Melt mass-flow rate	5
6.6	Moisture content	5
6.6.1	General	5
6.6.2	Method A	5
6.6.3	Method B	5
6.6.4	Method C	5
6.7	Tensile load and elongation at break of filament	5
6.8	Impurities limit	6
6.9	Volatile matter limit	6
6.10	Biobased (carbon) content	6
6.11	Carbon and environmental footprint	6
6.12	End-of-life options	6
6.13	Discharge ability	6
7	Verification	6
7.1	General	6
7.2	Sampling	6
7.2.1	General	6
7.2.2	Determination of acceptability	7
7.3	Type inspection	7
8	Mark, packaging, transportation and stock	8
8.1	Mark	8

8.2	Packaging	8
8.3	Transportation	8
8.4	Stock	8
Annex A (informative) Tester and testing procedure for discharge property test		9
Bibliography		12