

DIN EN ISO/ASTM 52924:2023-12 (E)

Additive manufacturing of polymers - Qualification principles - Classification of part properties (ISO/ASTM 52924:2023)

Contents		Page
	European foreword	3
	Foreword	4
	Introduction	5
1	Scope	6
2	Normative references	6
3	Terms and definitions	6
4	Symbols and abbreviations	7
4.1	Symbols	7
4.2	Abbreviations	7
5	Classification system	8
5.1	Definition of the classes of part property	8
5.2	Typical classification of important material classes and usage of the classification system for part properties	9
6	Test specimens for determining the characteristic values for the classification system	11
6.1	General	11
6.2	Tensile properties	11
6.3	Dimensional accuracy	11
6.4	Density	11
6.5	Labelling	12
6.6	Orientation, grid arrangement, and distribution in the build space	12
6.6.1	General	12
6.6.2	Orientation and grid arrangement to be used	12
6.6.3	Distribution in the build space	12
6.7	Manufacturing	16
7	Determination of characteristic values and classification in the classification system	17
7.1	General	17
7.2	Mechanical properties	17
7.2.1	General	17
7.2.2	Determination of characteristic values	17
7.2.3	Classification in the classification system	18
7.3	Dimensional accuracy	18
7.3.1	General	18
7.3.2	Determination of characteristic values	18
7.3.3	Classification in the classification system	19
7.4	Relative part density	19
7.4.1	General	19
7.4.2	Determination of characteristic values	19
7.4.3	Classification in the classification system	19
7.5	Classification in classes of part properties	19
8	Initial classification and regular checking of the classifications	20
8.1	Standard classification procedure	20
8.2	Initial classification	20
8.3	Regular checking	20
8.4	Renewed determination of the classifications in case of replacement of relevant machine components	20
Annex A (informative)	Form for part property classification in accordance with this document	22
Bibliography	23