

DIN EN ISO/ASTM 52945:2024-04 (E)

Additive manufacturing for automotive - Qualification principles - Generic machine evaluation and specification of key performance indicators for PBF-LB/M processes (ISO/ASTM 52945:2023)

Contents		Page
European foreword		3
Foreword		4
Introduction		5
1	Scope	6
2	Normative references	6
3	Terms and definitions	6
4	Methodology for generic machine evaluation	7
4.1	Specification of use-cases.....	7
4.1.1	General.....	7
4.1.2	Use-case 1 – Benchmarking of machines.....	7
4.1.3	Use-case 2 – Generic evaluation in factory/site acceptance test.....	8
4.2	Specification of specimen and build job design.....	8
4.2.1	Specification of generic specimen and testing standards.....	8
4.2.2	Build job design.....	10
4.3	Machine performance characteristics.....	13
4.3.1	Input data and framework.....	13
4.3.2	Definition of the machine performance characteristics.....	14
5	Definition of overall equipment effectiveness (OEE) for AM-machines	16
5.1	General.....	16
5.2	Overview.....	16
5.3	Considered plant operating time for OEE monitoring.....	18
5.4	Availability rate.....	18
5.5	Performance rate.....	18
5.6	Quality rate.....	18
5.7	OEE calculation.....	19
Annex A (informative) Examples for Clauses 4 and 5		20
Bibliography		28