



# Standardisation efforts of ISO/TC 261 “additive manufacturing” 21st plenary meeting of ISO/TC 261 “additive manufacturing”

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Received: 11 April 2023 / Accepted: 21 April 2023  
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## Abstract

The main objective of ISO/TC 261 is to standardise the processes of Additive Manufacturing, the process chains (Data, Materials, Processes, Hard- and Software, Applications), test procedures, quality parameters, supply agreements, environment, health and safety, fundamentals and vocabularies. This section provides readers with news regarding standardisation efforts of ISO/TC 261. Further up-to-date information regarding recently published documents, such as new standards, revised standards, the status of standards can be found in the ISO/TC261 webpages: <https://www.iso.org/committee/629086.html> and the committee webpages: <https://committee.iso.org/sites/tc261/home/news.html>.

**Keywords** Standardisation · Standards · Additive Manufacturing

## International organisation for standardisation (2023) 21st plenary meeting of ISO/TC 261 “additive manufacturing” held on 31 march 2023 at penn state university, USA

### 1. New projects

1.1 ISO/ASTM PWI 52,961 “Additive manufacturing of polymers—Environment, health and safety—General principles for use of polymers” registered as a preliminary work item and assigned to ISO/TC 261/JG 69 with a mature document for ISO/NP-ballot and ASTM F42.06 Sub-Committee Ballot due end of Q4/2024.

### 2. Project updates

2.2 ISO/ASTM PWI 52,954 will be split into two parts: ISO/ASTM PWI 52,954–1 “Additive Manufacturing—Qualification principles—Common failure modes used for risk mapping”, and ISO/ASTM PWI 52,954–2 “Additive Manufacturing—Qualification principles—Specific PBF-LB/M failure modes used for risk mapping”.

### 3. Project stage updates

3.1 ISO/ASTM AWI 52,957 “Additive Manufacturing—Design—Parts using ceramic materials”, will skip the CD-stage and to be registered as stage code 30.99 “CD approved for registration as DIS”.

3.2 ISO/ASTM AWI 52,919 “Additive manufacturing—Qualification principles—Test method of sand moulds for metal casting” will skip the CD-stage and to be registered as stage code 30.99 “CD approved for registration as DIS”.

3.3 ISO/ASTM AWI 52,958 “Additive Manufacturing of Metals—Powder Bed Fusion—Practice for In-Situ Flaw Detection and Analysis for Laser-based PBF” will skip the CD-stage and to be registered as stage code 30.99 “CD approved for registration as DIS”.

3.4 ISO/ASTM AWI 52,959 “Additive Manufacturing—Test Artifacts—Compression Validation Coupons for Lattice Designs” will skip the CD-stage and to be registered as stage code 30.99 “CD approved for registration as DIS”.

### 4. Project extensions

4.1 ISO/ASTM 52,933 “Additive manufacturing—Environment, health and safety—Test method for the hazardous substances emitted from material extrusion type 3D printers in the non-industrial places” will have a project extension for 9 months, updating the next target dates to 2024–06–05 for Stage 50.00 “Final text received or FDIS registered for formal approval”; and 2024–09–05 for stage 60.60 “International Standard published”.

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## 5. Revisions

5.1 ISO/ASTM 52,901:2017 “Additive manufacturing—General principles—Requirements for purchased AM parts” due for revision with regards to normative references and terminology.

## 6. Change of name and scope

6.1 ISO/TC 261/JG 69 “Joint ISO/TC 261-ASTM F 42 Group: EH&S for use of metallic materials” to have a change of title and scope to “Joint ISO/TC 261-ASTM F 42 Group: EH&S for use of metallic and polymer materials”, with the scope changed to “ISO/TC 261/JG69 is a Joint Group developing documents related to Environment, Health and Safety (EHS) aspects in all Additive Manufacturing processes that use metallic and polymer materials for industrial use, consisting from the supply of feedstock to the delivery of parts. The documents include, but are not limited to the identification of hazards, risk assessment, recommendations for protective and preventive measures, verification protocols, and waste disposal management.”

**Funding** Not applicable.

**Data availability** No datasets are available.

## Declarations

**Conflict of interest** Not applicable.

**Ethics approval** Not applicable.

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## Reference

21st Plenary Meeting of ISO, TC 261 “Additive Manufacturing”, 2023 International Organisation for Standardisation (2023) 21st Plenary Meeting of ISO/TC 261 “Additive Manufacturing” held on 31 March 2023. ISO/TC 261 N 1361.

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