



**The Leading European Network for
Additive Manufacturing in **Industry** and **Healthcare****



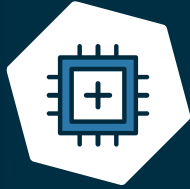
User & Application

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Facilitating exchange and knowledge sharing within and across user groups.



PUBLIC URBAN
TRANSPORT



MEDICAL TECHNOLOGY &
INNOVATION



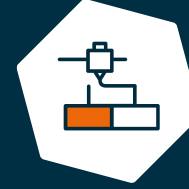
LIFESTYLE



RAILIABILITY



VEHICLES +
MACHINES



CONSTRUCTION



AERO & SPACE



HOSPITALS & POINT-
OF-CARE



PHARMA &
BIOPRINTING



DEFENSE



RAILiability

Intensified AM cooperation of railways at a european level

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- develop a joint database for printed 3D parts
- share requirements and learnings from development
- cooperate in material testing, research, development and cooperation with the industrial environment
- jointly accelerate the development of rail-AM



Defense

Bringing AM solutions to modern military needs

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- promotion of Additive Manufacturing in defense industry
- facilitate knowledge exchange among members
- develop standards and best practices for defense-related AM
- presentations and exchange on defense technology, legal aspects, material requirement and related topics



Hospitals + Point-of-Care

- Exchange between hospitals leading in AM about best practices and new technologies
- Global landscape and white paper for 3D printing in Point-of-Care in development
- "Heart Valve Special" webinar
- Promoted a Multicenter study



DEUTSCHES HERZZENTRUM
DER CHARITÉ



Medizinische Hochschule
Hannover



Universitätsklinikum
Hamburg-Eppendorf





Pharma & Bioprinting



Focus on innovation in 3D-printed drugs, bioprinting, and customized implants, accelerating biotech applications from lab to clinic



Explore AM solutions for pharma & biotech



Enable collaboration across sectors



Faster lab-to-clinic translation



Market Development

Identifying and addressing market demands, establishing standards, and providing regulatory support.



REGULATORY &
MARKET ACCESS



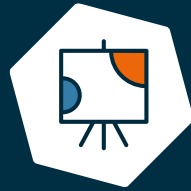
AM-TRL



DIGITAL SUPPLY
CHAIN



ECOLOGICAL
SUSTAINABILITY



EDUCATION &
TRAINING



APPROVAL IN RAIL



MATERIALS



Regulatory + Hospitals

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Add value.
Inspire trust.

White Paper

Practical guide:

**EU MDR – Successfully
navigating point-of-care
and health institution
exemptions**



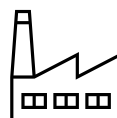
EU Medical Device Regulations (MDR)
Article 5(5): health institution &
Point-of-Care(PoC) exemption



Quality Management System (QMS)
for in-house devices



Risk management & patient safety



Practical implementation in hospitals
(incl. AM/PoC)



Verification & compliance evidence

Just get started and learn from others



scan QR code to buy





 directory

 standards

 use cases

 jobs

 materials

 trainings

weboostam.com

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FDM specification sheet

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The leading international network for
Industrial Additive Manufacturing



FDM Specification sheet

Introduction and Aim of the Specification

This specification sheet outlines the essential features and capabilities required for next-generation professional-grade FDM (Fused Deposition Modeling) 3D printers. It serves as a comprehensive guide for both printer manufacturers developing advanced systems and industry professionals seeking to procure high-performance equipment that meets stringent quality and security standards.

The following sections detail the desired mechanical properties, electronic systems, material compatibility, and performance metrics. By adhering to these specifications, manufacturers can create robust, reliable, and secure printing solutions that address the evolving needs of industrial users while differentiating themselves in a market increasingly saturated with lower-end alternatives.

Our goal is to foster the development of professional FDM printers that not only deliver exceptional print quality and efficiency but also prioritize data integrity and user privacy—critical factors in today's interconnected manufacturing environments.

Authors:

The following specification sheet was prepared under supervision by Dr. Sven Fritzsche from Mobility goes Additive e.V., in cooperation with its network members: WiWeB, Deutsche Bahn, ÖBB, SBB, SNCF, Siemens, Alstom, Ultimaker and Xerion.

Status:

Draft version, pending finalization in upcoming collaborative session.

This specification has been developed through the combined expertise of leading manufacturing, and 3D printing technology companies, ensuring a comprehensive industry perspective.

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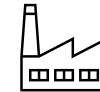
WE
BOOST
AM



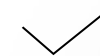
Modern spec sheet



For industry and defense needs



Data security



Quality and reliability



Standardization





Final report available





Digital approval of 3D-printed components for rail vehicles

Calculated strength
verification for AM
components PBF +
316L

Digitalization of the
approval process

- ✓ Derivation in FKM guideline
- ✓ Development of a digital platform
- ✓ Reduction of tests



Paderborner Institut für Additive Fertigung



HOCHBAHN



DIN ISO/ASTM 52920 Qualification principles

Global Qualification and Quality Framework for Industrial AM

www.din.de

Standardization of additive manufacturing processes

covers the individual processes, process chains (hardware and software), testing methods, quality parameters, delivery agreements, as well as the necessary fundamentals and terminology.

By leading the international committee ISO/TC 261 "Additive Manufacturing", DIN ensures that the interests of German industry are directly represented. A partnership agreement with ASTM International brings together expertise in the field of additive manufacturing. In this way, international standards with high market acceptance are developed.



Ways to Engage

- Supporting AM standardization
- Strategic expert participation
- Work in DIN-/CEN- and ISO committees

Find out more here



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2019/14 Additive Manufacturing

Additive
Manufacturing
at DIN and ISO



Unified qualification framework



Clear AM-specific quality assurance rules



Focus on AM equipment & System control



Integrated into Quality Management System



Defines infrastructure, responsibilities and workflows for industrial AM sites



Technical data sheets for polymer materials in AM

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MGA Guideline



Technical Data Sheets for Polymers in Additive Manufacturing

To build trust in the technology, we wanted to create a guideline for industrial AM datasheets. For too long, injection moulding data was part of data sheets, but printed parts are not just material-dependent, but their properties are dependent on many influencing factors of the print. So a TDS must not just provide values, but enough transparency about how testing was done, to make it possible to reproduce the results.

This guideline is just a minimal approach with the most crucial properties and information. Please don't stop here, but feel free to give additional information, material certifications, industrial-specific or material-specific properties or aging curves.

In this document, we differentiate between 4 basic materials

Filament (A)
Pallets (B)
Resin (C)
Powder (D)

All of them have their own additional important properties as well as differences in handling. Since the handling of tests is important for Glaubwürdigkeit and reproducing the given properties, we recommend giving out that additional information!

Therefore we divided the process into 4 steps:

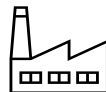
1. Raw Material Preparation,
2. Printing
3. Post Processing
4. Testing



Define minimum requirement for reproducible AM polymer data



Material classification



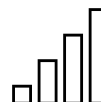
Raw material preparation



Printing process documentation



Sample preparation and testing condition



Reported material properties



Overarching Topics

Tackling sector-spanning issues, driving collaboration, and shaping the industry's course



STANDARDISATION



POLITICAL ENGINEERING



SUSTAINABILITY



SOCIAL IMPACT



DIGITALISATION
& AI



INTERNATIONALISATION



Report: Sustainable AM

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Chances and challenges for a green future

- What EXACTLY makes AM sustainable?
- Along the circular economy model
- Unsolved challenges
- Further sources

Benefits

- Comprehensive overview
- Basis for an informed discussion
- Unbiased information



CLICK
HERE





Annual Meeting 2026 + Women in AM Summit

October 12-13, Berlin





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