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## **Additive manufacturing of metals — Finished part properties — Post- processing, inspection and testing of parts produced by powder bed fusion**

*Fabrication additive de métaux — Propriétés des pièces finies — Post-traitement, inspection et essais des pièces produites par fusion sur lit de poudre*



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## Foreword

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This document was prepared by Technical Committee ISO/TC 261, *Additive manufacturing*, in cooperation with ASTM Committee F42, *Additive Manufacturing Technologies*, on the basis of a partnership agreement between ISO and ASTM International with the Objective to create a common set of ISO/ASTM standards on Additive Manufacturing, and in collaboration with the European Committee for Standardization (CEN) Technical Committee CEN/TC 438, *Additive manufacturing*, in accordance with the Agreement on technical cooperation between ISO and CEN (Vienna Agreement).

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## **Introduction**

As with conventional manufacturing processes (e.g. casting and milling), metallic parts produced by additive manufacturing technologies have critical-to-quality characteristics. These characteristics include density, strength, hardness, surface quality, dimensional accuracy, residual stresses, absence of cracks, voids, and structural homogeneity, which are typically tested in additively manufactured components. The quality of additively manufactured components is essential for functional components produced on an industrial scale. Thus, it is necessary to qualify additive manufacturing processes according to uniform criteria and to apply standardised in-process and post-process testing.