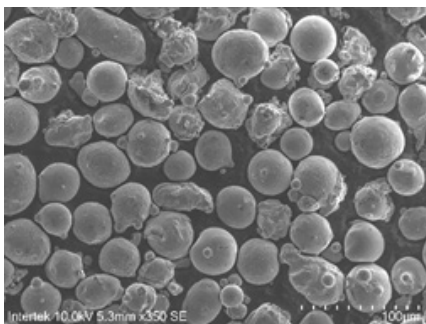


FACT SHEET

ADDITIVE MANUFACTURING

Reach your full potential with Additive Manufacturing

With increases in productivity and new machines encompassing larger build envelopes with varying deposition rates, there is a growing demand for testing and inspection in additive manufacturing.



SEM image of an additive layer powder

We work with end users, manufacturers, suppliers, researchers and stakeholders to ensure the quality of additive manufacturing is maintained.

Our Insights into your Process

We have experience working with a wide range of materials and different stages within the additive manufacturing process.

Our characterisation and testing package include:

- Powder morphology, size and distribution
- Sieve testing (ASTM B214)
- Apparent and tap density (ASTM B212 and B257)
- Hall Flow (ASTM B213 and B964)
- Microstructure, grain size assessment (ASTM F305, E112 and E930)
- Defect analysis such as lack of fusion, porosity, distortion, inclusions and oxidation assessment
- Material chemistry (ASTM E1019)
- Residual stress measurements
- Computed Tomography X-ray reconstruction
- Surface finish and texture assessment
- Hardness testing (ISO:6507)
- Mechanical testing (ASTM E1012)

Our involvement in driving additive manufacturing forward spans across various organisations and consortium such as ASTM and ISO.

Intertek can make your additive manufacturing process more robust.

Our Equipment

Comprehensive testing laboratories with a range of destructive and non-destructive testing techniques, including:

- Scanning Electron Microscopy (SEM) with Energy-Dispersive X-ray Analysis (EDX)
- Optical microscopy
- Infinite Focus Microscopy
- Vickers, Brinell and Rockwell hardness tester
- Tensile testing at elevated temperature, up to 1100°C
- Charpy and Izod
- X-ray Computerised Tomography (CT) Scanner
- X-ray diffraction (XRD)
- ICP-OES, ICP-MS, XRF

FOR MORE INFORMATION

+ 44 (0) 1332 247966

ndt@intertek.com

intertek.com/ndt