ENGIE Laborelec

3D Printing of Metal Components
Powder Lab

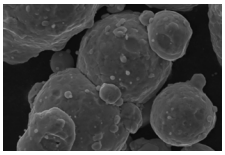
What is the best way to handle 3D printing powder and how does powder quality affect the properties of a printed component?

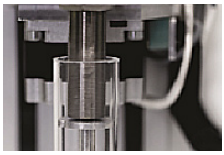
To answer these questions, powder manufacturers and additive manufacturing service providers will want to know about Laborelec's brand-new powder lab.

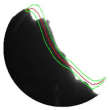
The lab offers a complete set of characterization techniques, as well as deposition and production testing using a flexible selective laser melting machine to provide data on the condition of a powder batch and its behaviour in the additive manufacturing (AM) process.

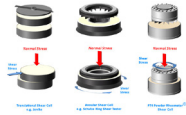
Powder characterisation testing, conducted according to ASTM norms, results in a product factsheet with full information on:

- overall powder quality
- predicted final component quality
- extended characterisation, including:
  - dynamic powder behaviour
  - powder storage
  - moisture
  - shape factor



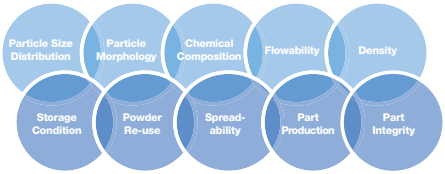






Powder is tested new, used or after poor storage conditions. Analysis results in Guidelines on the use of certain powder batches, covering factors such as:

- shelf-life
- storage conditions
- re-use
- health and safety



Would you like to know more?

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Five reasons for you to choose Laborelec

- Wide-ranging technical expertise in electricity generation, grids, and end-use
- Customers enjoy enhanced profitability and sustainability of energy processes and assets
- Unique combination of contract research and operational assistance
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- More than 50 years of experience