METAL POWDER CHARACTERIZATION

Characterizing physico-chemical or mechanical properties of metallic powders and sintered bearing materials



Your expectations

For a particular mechanical part produced by sintering, you want to know, check or qualify:

- characteristics of pure or mixed powder
- material properties after forming

Our solutions

Powders before sintering:

- SEM qualitative analysis with X-ray microanalysis (EDS method)
- apparent density
- grain size distribution
- Sintered materials:
- macro and microstructure analysis (distribution, grain size, morphology, inclusions, porosity ratio)
- analytic mapping through x-ray microanalysis, qualitative and quantitative analyses
- hardness measurement (even light-load hardness measurement), hardness survey
- tensile test on probes
- break surface and coating microfractography (X-ray microanalysis, G=900 to 900 000)
- testing standards for sintered materials
- apparent density of sintered parts
- porosity ratio of sintered materials (with an accuracy of 1%)

Your benefits

• Cetim offers standardized or specifically adapted tests according to your demands

- we have specific laboratory facilities (SEM, vacuum coating machine, electronic sieving machine, densimeter)
- our multidisciplinary approach with, beyond powder characterization, various skills in counselling, support for material and process selection and testing (we own a test bench mounted on an adiabatic press)



