

Chpolansky

Better powder characterisation targeting better use

Chpolansky, the industrial valve specialist, is aiming to better characterise the metal powders of its suppliers in view of improving the conditions in which these powders are used and adapting each type of powder to likely treatments.



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OUR CUSTOMER

Corporate name
Chpolansky

Turnover
26 millions d'euros

Workforce
170 employees

Business segment
As an expert in industrial valves, the metal industry, welding and hardfacing, Chpolansky distributes own-brand and benchmark-brand hardfacing powders.

Chpolansky, founded in 1930, operates from the Fontaine de Jouvence industrial estate in Marcoussis (Essonne), and is a reputed industrial valve expert. The firm specialises in the production of energy, environmental, instrumental and safety equipment and launched a part (mould) hardfacing line several years ago using metal powders with various compositions. The firm aimed to improve the characterisation of some powder batches using the Laser Metal Deposition (LMD) process in order to select the right product for the right use. According to Fazati Bourahima, doctor in metallurgy "All metal powders have different compositions and structures. Despite this,

we hardface moulds used in glasswork for some of our customers. These parts are subjected to the extremely high temperatures of liquid glass (between 700 and 1200°C), and then rapidly cooled, which triggers significant thermal shock and fatigue for both the mould and the hardface. On this basis, we must adapt the powder to the thermal conditions to be faced by the part treated".

Precise data and effective responsiveness

The firm asked Cetim to characterise several batches of nickel-based powder for this purpose, focusing on composition, particle size, castability, apparent density, compacted density and true density, etc. Fazati Bourahima continued "Cetim's observations under a Scanning Electron Microscope (SEM) and the chemical analyses performed are far more precise than the simple data provided by manufacturers.

This characterisation data are extremely valuable when combined with the types of technologies used by Cetim experts and reference standards. Thanks to this output, we were able to select the appropriate powder for hardfacing moulds, as well as better plan for which type of hardfacing should be used for other applications. Not only can Cetim provide an extremely detailed and precise report, but, more critically, Cetim was able to adapt to our circumstances by releasing a preliminary report within a couple of weeks, which we could then use to respond to the requirements of our customer as rapidly as possible."

Cetim's asset



Cetim can allocate and coordinate its technologies and experts to match specific requirements. Its highly responsive and complementary teams can guarantee quick solutions to meet the current need.