

311-076

Water Atomization of Stainless Steel – Coarse Powder to Sintered Filters

N. Karsokas Filho, D. Rodrigues, J. P. Tosetti, F. Ambrozio Filho, F. Beneducce Neto,
L. Salgado.
BRATS ; IPT ; IPEN -

Water atomization is a very complex process that is influenced by many variables. It is not to ease to establish a straight relationship between atomization variables and the physical and chemical properties of the atomized powder. Chemical composition, particle size and morphology have to be defined considering a specific application. In the case of sintered stainless filters, it is usual the need of coarse and irregular particles, with a defined chemical composition. This paper discusses the effects of variables as atomization pressure (75 and 130 kPa) and type of input materials (raw material or scrap) on the physical and chemical properties, considering coarse (500-850µm) particles to be used in sintered filters. The main aspect in the chemical composition investigates was the silicon content.