

REVISITING THE EFFECTS OF WHITE FUSED ALUMINA OR TABULAR ALUMINA FOR REFRACTORY CASTABLES

Vinicius F. Silva*, Victor C. Pandolfelli Universidade Federal de São Carlos, São Carlos, Brazil

Mariana A. L. Braulio 4CAST - Technical Consultancy and Assistance on Refractories, São Carlos, Brazil

> Jean-Michel Auvray, Christoph Wöhrmeyer, Chris Parr Imerys, Paris, France

*viniciusferro@estudante.ufscar.br

As one of the most important raw materials in the refractory industry, aluminium oxide has two main aggregate sources: white fused alumina (WFA) and tabular alumina (TA). It is known that by using electricity (WFA), instead of oil or gas (TA), the white fused alumina production process might be considered a better option for the future, under an environmental standpoint. Besides the production route, both raw materials can be differentiated by their intrinsic features. In this sense, the objective of this paper was to conduct a systemic revisiting analysis regarding the impact of these sources on the properties of high alumina monolithic refractories. The results indicated major differences not only on initial processing steps but also on the thermo-mechanical properties, pointing out the benefits and cares associated with the application of these aggregates.

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