



SUPERVISOR EVALUATION

Diploma thesis

Thesis title: **PRODUCTION OF CERAMIC AGGREGATES IN ROTARY KILN**

Author: **Alessandro Sechi**

Supervisor: **Skočilas Jan, doc., Ing., Ph.D.**

Reviewer: **doc. Ing. Karel Petera, Ph.D.**

Author elaborated diploma thesis within range of 93 pages, containing 84 figures, 18 tables and 2 appendixes. 20 literature sources were used for literature search.

The thesis deals with CFD analysis and optimization construction inserts into the rotary kiln. The student introduced with theory of production process in rotary kiln, description of particle movement in rotating drum and approached of simulation of such a process.

The student's approach was very active and responsible. He worked independently. His literature research related to ceramics production is wide and concern state of art of production technologies. He performed numerical analysis on smooth rotary kiln, with construction and then according to his knowledge he designed new construction elements to improve residence time distribution of particle in kiln. His own designs were also been analysed by CFD simulation and compared with theory. The results of the work were affected by the COVID-19 pandemic, which broke out in 2020 and 2021.

The author acquired a lot of experiences and knowledge in the field of simulation of rotary kilns.

Mr. Sechi fulfilled all aims of the submission. I evaluated him by grade

A (excellent)

In Prague, 21. 6. 2021


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doc. Ing. Jan Skočilas, Ph.D.