Supervisor's report of the diploma thesis

Santhosh Reddy Bemmireddy

INJECTION OF TEST SPECIMEN FOR TENSILE TEST

The aim of the work was to propose parameters of an injection molding process for injecting a test specimen for a tensile test. The proposed process parameters should be verified using tests on a real injection machine available in a laboratory of the department. The difficulty of the task was considered as easier.

Mr. Bemmirreddy fulfilled the task of the thesis. Nevertheless, the expectations about the work which could have been done were higher. The original idea was that the numerical calculations will be compared with experimental work, that should contain tests in which process parameters such as temperature profile in the screw, time of filling, injection pressure, etc. are changed and the effect of these parameters on the quality of the injected specimen is studied. The comparison between parameters from a model calculation and a real process should have been much more comprehensive. The work, however, is aimed on parameters design only and the comparison with the real process is made just upon the comparison of data obtained from one model calculation with data used standardly in the real injection process at one configuration. Time was missing to the author to be able to do more.

In an effort to expand the work, Mr. Bemmireddy tried to model the process also using different software (ANSYS Fluent) with the aim to compare the results from two different computational software at least, but he did not achieve satisfactory results from those calculations and thus the author did not even mention about these efforts in the thesis.

It must be said that the author did not need any help from me as a supervisor. He discussed some problems with other consultants but I cannot evaluate how much support he got from them. From my point of view, Mr. Bemmireddy worked independently and actively, nevertheless some parts of the work were finished after longer time periods.

The professional level of the final work is low. More work should have been done. The formal and language quality is also not too good. The work contains grammar and formal mistakes. The mistakes were caused by completing the work at last minute (final version was printed without supervisor's proof reading). With respect to the quality of the work, the knowledge of the author, his work and attitude, I evaluate the thesis with the qualification grade

satisfactory (D).

In Prague, 12th August 2019   Ing. Jiří Moravec, Ph.D.

                                                                                              m. p.