Manuscript ID: polymers-892066
Type of manuscript: Article
Title: Study of the Influence of Technological Parameters on Generating Flat Part with Cylindrical Features in 3D Printing with Resin Cured by Optical Processing
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Response to reviewer: 17.08.2020 (GMT +2) ,

Response to Reviewer 1 Comments

Point 1: This manuscript investigates the influences of the DLP 3D printing process on the characteristics of the flat and cylindrical surfaces.

Response 1: This is a multidisciplinary study in which the authors intend to determinate the precision of the 3D DLP printed part by using a very accurate 3D measuring system (CMM), and to determinate the optimum dimension of the support elements and the optimum condition for flatness, straightness and roundness using mathematical statistical modelling with ANOVA and surface regression.

Point 2: From reading the abstract, it is so vague to understand the motivation behind this study and its key findings.

Response 2: The abstract was modified in lines 12-13 and 16-25, for a better understanding.

Point 3: The authors claimed that the deformation of the flat surface decreased to an optimal point between 50 and 55%.

Response 3: The abstract was modified in the last part, line 21 to 25.

Point 4: However, the authors have not provided any reference to support their claim/statement regarding the optimal range.

Response 4: In the first manuscript (manuscript.pdf) there are comments regarding the optimal value: e.g. from lines 448 to 454, 474 to 485, 488 to 490, or 513 to 522, resulted from the Figures named Contours of Estimated Response Surface. Taken into consideration other observation from the Reviewer, the Exploratory part and the Conclusion part were modified and tables with optimal values were added (e.g. Table 4 to 10). As example, one of these modifications can be seen in line 369 or 385 of modified paper.
All graphs named Contours of Estimated Response Surface were completed with the dash lines for determining the optimal point values and theirs coordinates in the graphs.

Point 5: In this manuscript, there are 70 figures and 9 tables, which is unusual for a peer reviewed article.

Response 5: Writing the paper, the authors tried to comply the conditions imposed in the ”Type of the Paper” of the Polymers Journal.

However, the authors modified the structure of the paper which have now 35 figure and 10 tables in the main part of the Article and 26 figures and 8 tables in the Appendix.

Point 6: Reading the manuscript sounds more like a lab report, rather than a well-organized article.

Response 6: This is a personal Reviewer opinion.

Point 7: The authors tried to divide the content of the manuscript into two different sections, which even made it more complicated.

Response 7: Writing the paper, the authors tried to comply the conditions imposed in the ” Type of the Paper” of the Polymers Journal.

The authors modified at point 2.5 the structure of the presentation for a better understanding the logic of conducting the experiments.

Point 8: There are numerous grammatical mistakes and formatting issues that need to be corrected.

Response 8:
Grammatical aspects: UK English is used for writing the text.

Formatting aspects:
1. The problems were in the Discussion 4.3 and it is by Tab and font size. These aspects were modified.
The mentioned aspects were remedied and, in the meantime, the whole paper was rechecked from all the points of view of the settings including images, equations and tables.

Point 9: I suggest authors go through the manuscript and try to summarize the key points to capture the reader’s attentions.

Response 9: Based on this recommendation, all chapters of the article have been redone and improved. The dimension of the Article was reduced from 27 pages to 21 pages.

Point 10: Most of the figures and data presented in the tables should be in the supporting information.

Response 10: In the first manuscript (manuscript.pdf) only the Figure 7 was not in the supporting information. Now, there are explanations in the supporting informations about all figures and tables.

In the modified paper, the authors added supplementary explanations: e.g. from line 287 to 290,…, 435 to 442. The authors have also taken into account the recommendation from point 11.

Point 11: Most of the results and discussions can be summarized into shorter paragraphs.

Response 11: The authors modified the reviewed article taken into consideration this aspect which is possible to be observed in line 419, as an example. The dimension of the Article is reduced from 27 pages to 21 pages.