

Additive Surface Graining in Prototype Tooling for Injection Moulding



Motivation and Relevance

- Creation of grain structures in tool surfaces usually requires complex etching, electrical discharge machining or laser structuring processes
- These processes are long lasting and the technics require high investments

Approach

- Development of grain structures for additive manufacturing
- Replacing of the structuring process by integrating the structure into tool design for additive manufacturing
- Testing of additive grain structures in injection moulding

Results

- Validated grain structures for the design of additively manufactured prototyping tools
- Proofed usability of these tool for prototyping in injection moulding process

Functional optimization



Shortened product development



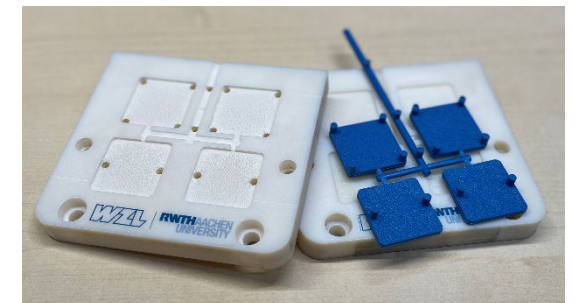
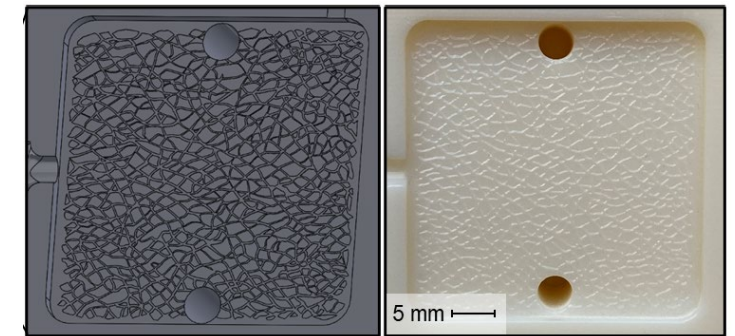
Lower production cost



Research Area

- Productivity
- Prototyping
- Injection Moulding

Picture



Contact



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