

Effect of opening material granularity on the mould properties and the quality of castings made by patternless process technology

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Submitted article deals with the methods to improve mould breathability when using the Patternless process method and also examines the influence of opening material grain size on the dimensional and shape precision of made castings. Mentioned methods are based on the principle of direct milling cavity into block from moulding mixture with CNC machining. As the moulding material was used CT moulding compound composed of opening materials SH 35, SH 31 and water glass as binder. The curing process took place by purging CO₂ gas through moulding compound. To achieve the highest quality surface cavity was used protective coating PROTECT WC1. The final shape and dimensional accuracy of the castings was evaluated using a 3D measuring device and a contourgraph.

Keywords: Patternless process, mould cavity, opening material

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