

Title (en)

Process and apparatus for molding article.

Title (de)

Verfahren und Vorrichtung zum Formen von Gegenständen.

Title (fr)

Procédé et dispositif pour le moulage d'articles.

Publication

EP 0583124 A2 19940216 (EN)

Application

EP 93306088 A 19930802

Priority

- JP 10186093 A 19930406
- JP 22637692 A 19920803

Abstract (en)

A process for molding an article made of an inductive material is provided, wherein the inductive material is molded in a mold by means of high frequency induction heating caused by a high frequency magnetic field which is established by a high frequency induction coil surrounding the outer periphery of the mold. The process comprises the steps of: (a) supplying the inductive material continuously or intermittently from the top of the mold; (b) subjecting the inductive material in the mold to the high frequency induction heating to melt the same thereby to form a molten zone; and (c) moving the mold downwards relative to the high frequency magnetic field; the steps (a), (b) and (c) being done simultaneously to move the molten zone upwards from the bottom to the top of the mold, whereby the inductive material is once melted and then solidified to form a molded article. The inductive material may be an inductive metal or a composite material composed of an inductive metal and a ceramic material. The condition of the material in the mold may be monitored by a sensor and the lowering speed of the mold or the electric power for energizing the high frequency induction coil is controlled in response to the signal from the sensor. The mold may be vibrated to improve the production efficiency and the property of the molded article. Also provided is an apparatus for accomplishing the process described above. <IMAGE>

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CPC (source: EP)

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Cited by

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