Title (en)

METHOD FOR CONTROLLING/REGULATING THE DISTRIBUTION OF THE INJECTION MOLDING COMPOUND, AND MULTI-CAVITY INJECTION MOLD

Title (de)

VERFAHREN ZUR STEUERUNG/REGELUNG DER VERTEILUNG DER SPRITZMASSE SOWIE MEHRKAVITÄTEN - SPRITZGIESSWERKZEUG

Title (fr)

PROCEDE POUR COMMANDER/REGULER LA DISTRIBUTION D'UNE MATIERE A MOULER PAR INJECTION ET OUTIL DE MOULAGE PAR INJECTION A PLUSIEURS CAVITES

Publication

EP 1341661 A1 20030910 (DE)

Application

EP 01980103 A 20011109

Priority

- CH 0100659 W 20011109
- CH 24182000 A 20001212

Abstract (en)

[origin: WO0247887A1] The invention relates to a method and to a device for controlling/regulating the distribution of the injection molding compound in multi-cavity injection molds, especially for molds with a large number of cavities, for example 48 to 128 cavities. The invention distributes the injection molding compound in groups of, for example, four to twelve nozzles. Each group is provided with one classical nozzle, as the master nozzle, that is controlled via the local heating capacity and temperature sensors. All other nozzles or cavities of the same group are configured as slave nozzles that have no temperature sensors. The virtual actual temperatures are computed via saved model computations and are displayed on the user panel. The user is thus provided with the desired/actual temperature values for every nozzle and can thus influence every single nozzle, depending on the result, in the form of temperature values. The invention allows reduction of the regulation to a minimum while the quality of the injection molding compound distribution is maintained, thereby reducing production costs and allowing a more economic operation of the control and regulation systems.

IPC 1-7

B29C 45/78

IPC 8 full level

B29C 45/78 (2006.01)

CPC (source: EP US)

B29C 45/78 (2013.01 - EP US); B29C 2045/2687 (2013.01 - EP US)

Citation (search report)

See references of WO 0247887A1

Designated contracting state (EPC)

AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE TR

DOCDB simple family (publication)

WO 0247887 A1 20020620; AU 1203102 A 20020624; CA 2431385 A1 20020620; CA 2431385 C 20090120; CN 100406233 C 20080730; CN 1479670 A 20040303; EP 1341661 A1 20030910; US 2004076702 A1 20040422; US 7507359 B2 20090324

DOCDB simple family (application)

CH 0100659 W 20011109; AU 1203102 A 20011109; CA 2431385 A 20011109; CN 01820380 A 20011109; EP 01980103 A 20011109; US 45011903 A 20031105