

Title (en)

Process and equipment for quick drying of ceramics.

Title (de)

Verfahren und Vorrichtung zum schnellen Trocknen von keramischen Produkten.

Title (fr)

Procédé et installation pour le séchage rapide des produits céramiques.

Publication

EP 0218733 A2 19870422 (EN)

Application

EP 85112264 A 19850927

Priority

IT 2214485 A 19850913

Abstract (en)

Process for reducing strongly the drying time of ceramics, even of considerable weight, consisting in effecting drying in a single room in three stages, the first by supplying heat to a static or slightly ventilated ambient at room temperature; the second by placing the dryer under a vacuum of about 380 Torr so as to cause highly turbulent air to be introduced in the ambient; the third stopping air inlet and increasing vacuum up to about 45 Torr; or as a variant, carrying out drying in two separate rooms and in two stages: the first by supplying heat to a heated and highly ventilated ambient at room pressure; the second in an ambient where a vacuum of about 60-45 Torr is created. Means for carrying out the process according to the first system, consisting in putting the interior of a static drying oven of known type in communication with one or more vacuum pumps, and arranging inside the oven along its walls, at intervals, a set of pipes provided along their length with a set of injection nozzles oriented on said pipes, in such a way that those of a pipe are blowing opposite to those of the pipes arranged in front and aside said pipe, respectively, so as to create a strong turbulence, said pipes being connected through manifolds with the external environment from which air is sucked only by vacuum produced in the oven. Means for carrying out the process according to the variant, consisting in placing the material firstly in a tunnel of known type, inside which there are, for each group of materials, means blowing hot air in the form of a blade and means for moving back and forth the blowing means in respect of the group of products to be dried, or the groups of products in respect of the blowing means, for the time required to the stage in which to drying of the products corresponds also a material shrinkage, and then a second tunnel provided with heat radiating walls and with the interior communicating with one or more vacuum pumps so as to effect final drying without shrinkage.

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IPC 8 full level

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CPC (source: EP)

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Cited by

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