

ABSTRACT

Process for the preparation of a moulding material or a moulding comprising a thermoplastic, containing nanoscale, inorganic particles, the thermoplastic being mixed in the molten state with the nanoscale inorganic particles and a solubilizer in an extruder having screw transport, pressures and temperatures at which the plastic is present as a melt and the solubilizer is present in the supercritical state being set, characterized in that the mixture is transported at the exit of the extruder through a passage of less than 20 μm into a flash zone and the melt is discharged with the incorporated, nanoscale, inorganic particles, comminuted after cooling to give a moulding material or transferred into a shaping processing tool and shaped to give a moulding. The invention furthermore relates to the moulding material and mouldings obtainable by the process according to the invention and to the uses thereof.