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(54) Title: GEL STRENGTH ENHANCING ADDITIVES FOR AGAROID-BASED INJECTION MOLDING COMPOSITIONS

(57) Abstract

Parts from ceramic and/or metal powder(s) are shaped by a process that comprises the steps of (1) forming a mixture comprising ceramic and/or metal powder(s), a gel-forming material chosen from the class of polysaccharides known as "agaroids", a gel-forming solvent, and a gel strength enhancing agent, and said mixture being formed in a blender that provides a shearing action and being heated to raise the temperature of the mixture to about 70 °C to 100 °C; and (2) molding the mixture at a temperature sufficient to produce a self-supporting structure comprising the powder and gel. The parts exhibit excellent green strength and are rapidly fired without cracking, distortion or shrinkage problems.

Injection Molding Process

