

A NOVEL CONCEPT FOR CERAMIC INJECTION MOLDING

—SIMSE PROCESS—

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A novel ceramic injection molding process recently developed by NKK is reviewed. This process is comprised of slip injection molding, and supercritical extraction depicted in Figure 1. A slip is injected into a mold under pressure less than 1MPa, and allowed to set up on cooling. The moldings thus obtained are subjected to supercritical extraction where injection molding binders are removed in drastically short time. This process has inherent advantages over the conventional injection molding process; (1) this novel process makes possible the fabrication of thicker and larger components; (2) it reduces such component imperfections as weld lines, and cracking; (3) it makes possible to apply cheaper molds.

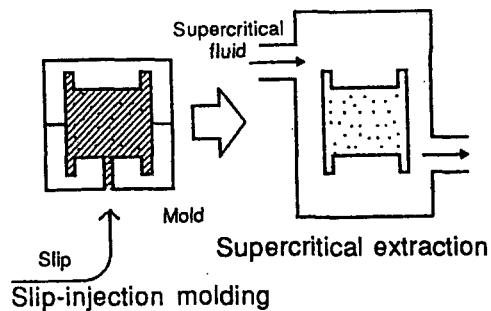


Fig.1 Concept for SIMSE process.