

Title (en)

Casting compositions for manufacturing metal casting and methods of manufacturing thereof

Title (de)

Gießzusammensetzungen zur Herstellung von Metallgussteilen und Herstellungsverfahren dafür

Title (fr)

Compositions de moulage pour la fabrication de moulages métalliques et leurs procédés de fabrication

Publication

EP 1930095 B1 20091111 (EN)

Application

EP 07121580 A 20071127

Priority

US 56740906 A 20061206

Abstract (en)

[origin: EP1930095A2] Disclosed herein is a method comprising disposing a casting composition within a sacrificial die; wherein internal features of the sacrificial die provide a replica of a desired casting; wherein the casting composition has a viscosity of about 1 to about 1,000 Pascal-seconds at room temperature when tested at a shear rate of up to 70 seconds⁻¹; reacting the casting composition to form a gel matrix; removing the sacrificial die; extracting a solvent from the gel matrix to form a dried gel; and firing the dried gel to form a ceramic core. Disclosed herein too is a casting composition comprising a monomer and/or a polymer; and a metal and/or ceramic powder; wherein the casting composition has a viscosity of about 1 to about 1,000 Pascal-seconds at room temperature when tested at a shear rate of up to 70 seconds and a flow index of less than 0.6.

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