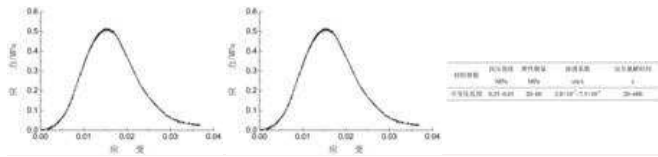
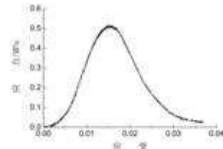


#			Title	Publication number	1st app. date	Applicant/Assignee	1st publ. date	Publ. date
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| 1. | Similar material for fault mud burst model test and preparing method thereof | CN104891928 | 2015-05-18 | SHANDONG UNIVERSITY* | 2015-09-09 | 2015-09-09 |
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The invention relates to a similar material for a fault mud burst model test and a preparing method thereof; the similar material comprises the components by weight: 1 part of a talcum powder, 2-7 parts of sand, 0.8-1.6 parts of gypsum, 0.2-0.6 part of bentonite, 0.01-0.4 part of liquid paraffin, and 0.2-0.7 part of mixing water. The preparing method comprises the steps: according to the proportion, weighing the talcum powder, sand, gypsum, bentonite and liquid paraffin; mixing evenly the talcum powder, sand, gypsum and bentonite in a stirrer; adding the mixing water, and fully stirring; adding the liquid paraffin and stirring; putting the mixed material into a molding die, and carrying out compaction molding; placing the molded material in a ventilated dry place for 24-36 h, and thus obtaining the similar material for the fault mud burst model test. The similar material can be slowly weakened and disintegrated under a water action, the disintegration performance can be changed through changing the composition, and a possibility is provided for fault mud burst in a process of real simulation of tunnel excavation.

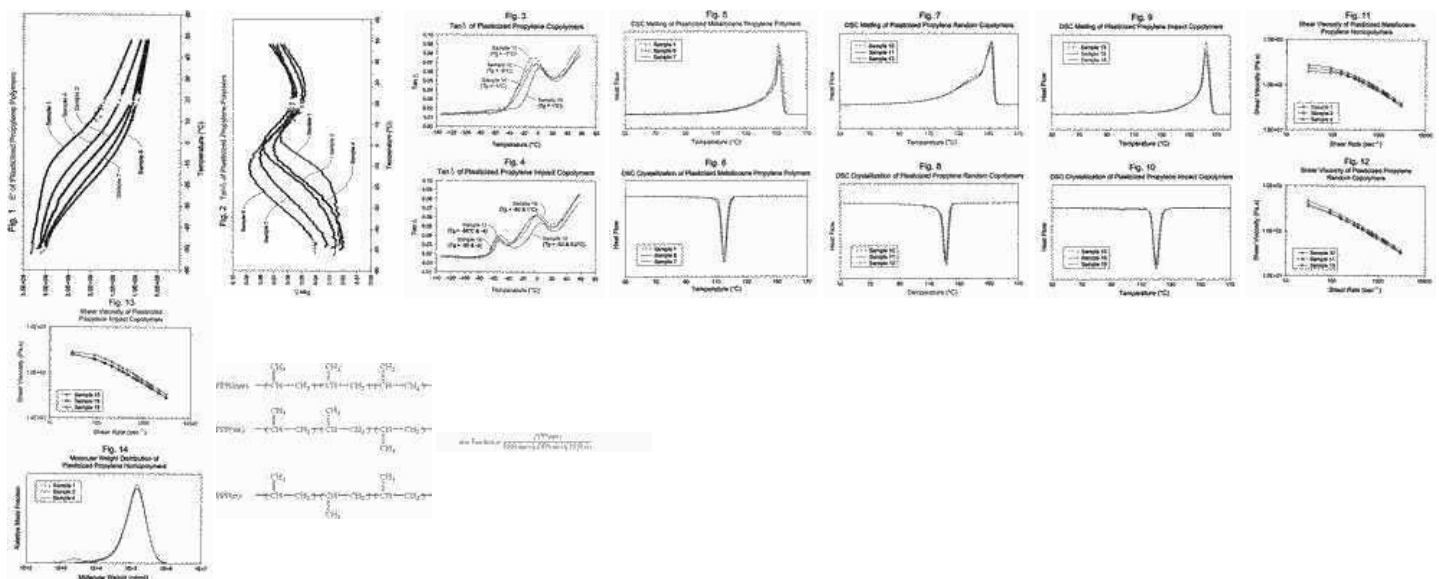
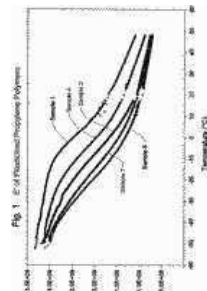


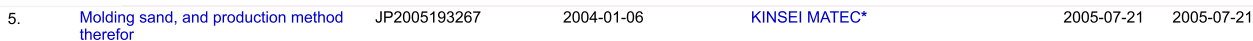
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| 2. | Molding sand for conformal high pressure modeling and preparation method thereof | CN104525835 | 2014-12-01 | FANCHANG COUNTY HENGXIN AUTO PARTS* | 2015-04-22 | 2015-04-22 |
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Molding sand for conformal high pressure molding is prepared from the following raw materials in parts by weight: 2-3 parts of microcrystalline wax, 4-7 parts of nano pottery clay, 1-2 parts of a polyamide wax micro-powder, 9-12 parts of sodium-based bentonite, 7-9 parts of pulverized coal, 40-50 parts of high-potassium sand, 40-50 parts of potassium sodium stone, 20-26 parts of wollastonite, 130-160 parts of clay, an appropriate amount of water, and 20-30 parts of an auxiliary agent. Through adopting the clay for sintering granulation, the molding sand has good air permeability and good dispersion and can be recycled; through the use of the high-potassium sand, the potassium sodium stone and the nano pottery clay and through melt granulation, the heat resistance, dispersion, air permeability and compressive strength of the molding sand are increased, and bonding of clay particles can be effectively prevented; and the molding sand is high in bonding strength, and suitable for conformal high pressure molding and casting of spheroidal graphite cast iron rear axles, chassises and the like.

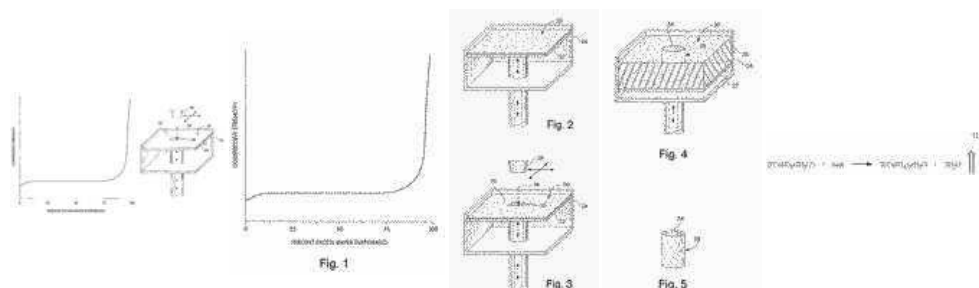
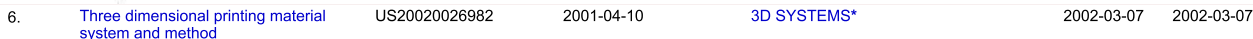
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| 3. | Plasticized polyolefin compositions | WO2004014998 | 2003-08-04 | EXXON CHEMICAL
EXXON MOBIL CHEMICAL PTE | 2004-02-19 | 2004-02-19 |
|----|-------------------------------------|--------------|------------|--|------------|------------|

The present invention relates to plasticized polyolefin compositions comprising a polyolefin and a non-functionalized plasticizer, wherein the non-functionalized plasticizer may comprise C 6 to C 200 paraffins (including branched and normal paraffins) having a pour point of less than -5°C. In one embodiment, the non-functionalized plasticizer is an isoparaffin comprising C 6 to C 25 isoparaffins. In another embodiment the non-functionalized plasticizer is a polyalphaolefin comprising C 10 to C 100 n-paraffins. The polyolefin may be a polypropylene homopolymer, copolymer, impact copolymer, or blends thereof, and may include a plastomer. Non-limiting examples of desirable article of manufacture made from compositions of the invention include films, tubes, pipes, sheets, fibers, woven and nonwoven fabrics, automotive components, furniture, sporting equipment, food storage containers, transparent and semitransparent articles, toys, tubing and pipes, and medical devices.

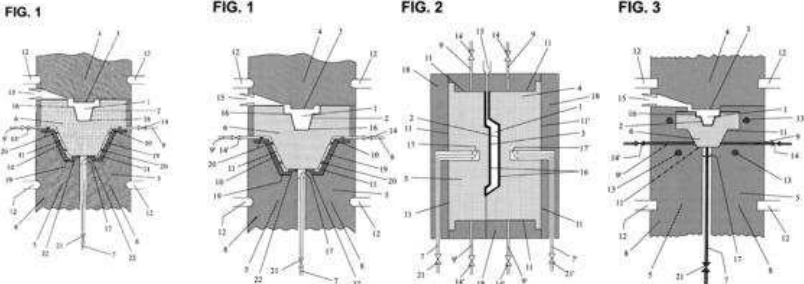
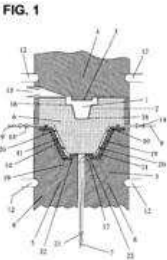




SOLUTION: An $\text{Al}_2\text{O}_3 \cdot 2\text{SiO}_2$ -based refractory raw material such as fired bauxite is melted. The melt is sprayed with gas such as high pressure air, and is cooled and solidified while being scattered in the shape of fine particles. Thus, a melted sphere having the chemical components of $\geq 70 \text{ wt.} \% \text{ Al}_2\text{O}_3 \cdot 2\text{SiO}_2$, comprising an alumina crystal phase as the main constituent in crystal constitution and having a particle size distribution of 30 to $3,000 \mu\text{m}$ is formed.



A process for production of a moulded ceramic and/or metallic body from a ductile material comprising one or more ceramic and/or metallic components, which material is fed into the pre-heated mould cavity (1) of a moulding tool. The moulding tool includes at least two mould parts (4, 5) of which at least one wholly or partly consists of a microporous material with communicating micropores. At least one mould cavity (1) comprising at least one mould surface (2, 3) exhibiting closed micropores is arranged in the microporous mould part (4, 5) or in a microporous section (6) thereof. The microporous mould part (4, 5) or the microporous section (6) thereof is pre-heated by supply of warm fluid, such as a heated gas. Said part (4, 5) or section (6) is after terminated moulding cooled by supply of cold fluid, such as a condensed gas. The invention includes in a further aspect a moulded body produced according to the process.



1489221 Casting moulds DYNAMIT NOBEL AG 3 Oct 1974 [3 Oct 1973] 42402/74 Heading C3N [Also in Division B5] A process for the production of a casting mould for use in the casting of metal comprises applying direct to a permanent pattern a first layer consisting of a ceramic composition slip containing particulate refractory material, one or more liquid binding agents, the binding agent(s) being selected from partially hydrolysed and/or condensed alkyl silicates and alcoholates of aluminium, zirconium and titanium, which may be partially condensed and optionally being admixed with a solvent therefor, and an anti-settling agent which is a substance which serves to produce a thixotropic effect or is a thickening agent, causing or allowing the first layer to harden and before hardening of the first layer is complete, applying thereto a second layer comprising fire clay and an alkali metal silicate as binder and subsequently hardening the second layer with carbon dioxide as curing agent for the alkali metal silicate. When an alcoholate is used as binder the binder may also contain a #-dicarbonyl compound, a hydroxycarboxylic acid or a polyhydric alcohol. Suitable solvents are alcohols such as ethylene glycol monoethyl ether and the solvent may be used in an amount 5-50% by weight based on the binder. The anti-settling agent may be montmorillonite or a derivative thereof, swelled bentonites, pyrogenic silica, asbestos, cellulose esters, hardened castor oil derivatives, talc or mica. The partially hydrolysed and/or condensed alkyl silicate may contain 8-35%, e.g. 20% by weight silica. The binder may be hardened with an amine, e.g. triethanolamine, ammonia or MgO. The refractory material is preferably electrofused aluminium oxide, silicon dioxide, zirconium dioxide, mullite, zirconium silicate, sillimanite, chromium-containing sand or quartz. In the production of the mould a plurality of ceramic layers may be applied as slips to the pattern and while the layer remains unhardened a layer of coarse grained refractory material having a particle size of 0A12-1 mm. may be applied, thus producing a shell mould. In the specific examples the slip comprises partially hydrolysed ethyl silicate containing 20% SiO 2 , dimethyl dioctadecyl ammonium montmorillonite, petroleum ether, a wetting agent based on polyamine polyamides and acid esters, triethanolamine as hardener and either a mixture of zirconium silicate and mullite or calcined kaolin. (From GB1489221 A)