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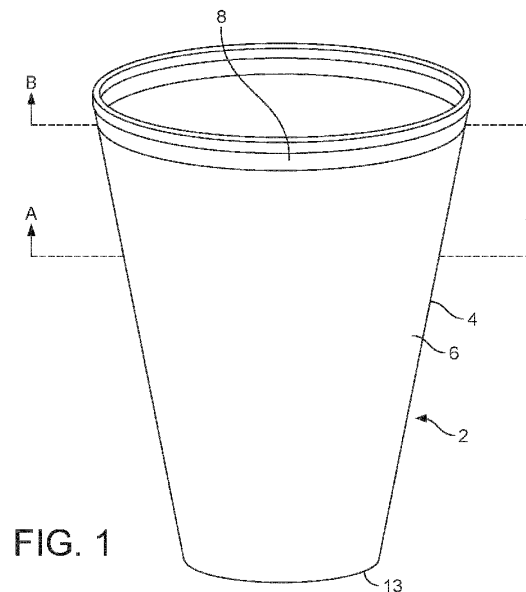
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(54) Title: METHOD OF FORMING AN ARTICLE



(57) Abstract: A method of forming an article, the method comprising: (a) providing a mould having a first mould part and a second mould part, the first and second mould parts having respective first and second cavity-forming surfaces; (b) closing the mould thereby defining a cavity between the first and second cavity-forming surfaces; (c) injecting a molten plastic composition comprising a polymer and a physical blowing agent into the cavity, wherein during or after the injecting step (c), the injected plastic composition in contact with the first and second cavity-forming surfaces is cooled to form first and second solid skins respectively adjacent to and in contact with the first and second cavity-forming surfaces, whereby in at least one region of the cavity is respectively located at least one portion of the plastic composition in which portion at least some of the plastic composition between the first and second solid skins remains molten, wherein the thickness of the respective portion is constant within a tolerance of +/- 0.5%, preferably +/- 0.2%, based on a

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nominal thickness of the respective portion; (d) opening the mould before the molten plastic composition between the first and second solid skins has solidified in the at least one portion, so as to expose the molten plastic composition of the respective portion to an external pressure lower than the injection pressure thereby allowing the molten plastic composition between the first and second solid skins of the respective portion to expand by foaming to form an expanded cellular foam as a result of the molten plastic composition beneath the first solid skin expanding outwardly away from the second solid skin which stretches the first solid skin in the respective portion, wherein the opening step comprises removing the first mould part so that the first solid skin is no longer in contact with the first cavity-forming surface; and (e) cooling the expanded cellular foam to cause the molten plastic composition between the first and second solid skins of the respective portion to solidify and to form in the article at least one first part comprising a core layer of cellular foam between the first and second solid skins, wherein after the cooling step (e) the length of the first solid skin in the respective portion has stretched, as compared to the first solid skin present prior to the opening step (d), by a stretch ratio of from 0.5 to up to 3%, wherein the stretch ratio is the ratio of the increase in the length of the first solid skin after cooling step (e) based on length of the first solid skin before the opening step (d).