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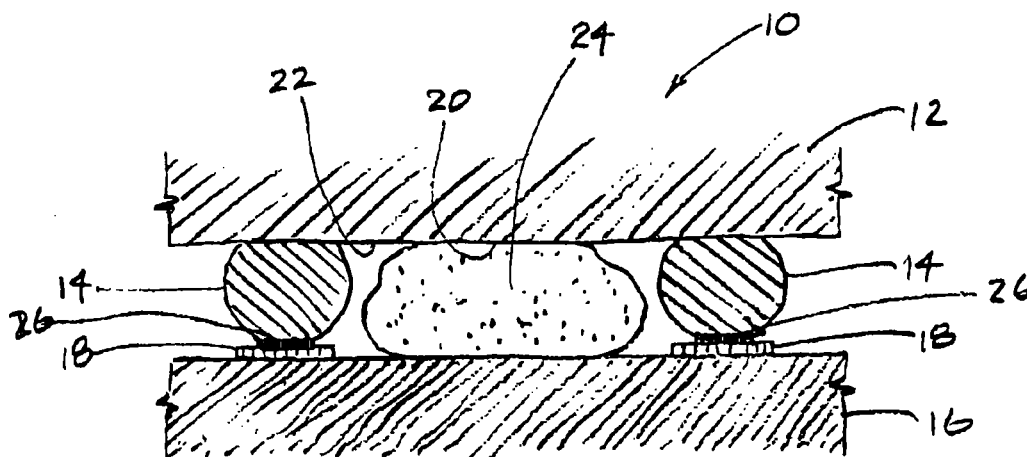
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(54) Title: PACKAGING STRUCTURE AND METHOD



(57) Abstract: A method for forming metallurgical interconnections and polymer adhesion of a flip chip (12) to a substrate (16) includes providing a chip (12) having a set of bumps (14) formed on a bumped side (22) thereof and a substrate (16) having a set of interconnect points (18) on a metallization thereon, providing a measured quantity of polymer adhesive (24) in a middle region of the chip (12) on the bump side (22), aligning the chip (12) with the substrate (16) so that the set of bumps (14) aligns with the set of interconnect points (18), pressing the chip (12) and the substrate (16) toward one another so that a portion of the polymer adhesive (24) contacts the substrate (16) and the bumps (14) contact the interconnect points (18), and heating the bumps (14) to a temperature sufficiently high to form a metallurgical connection between the bumps (14) and the interconnect (18). Also, a flip chip (12) package is made by the method. In some embodiments the metallurgical connection includes an alloy of gold and tin at the interface between the bumps (14) and the interconnect points (18).

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