Claims:

1. A method for forming a redistribution layer, comprising:

depositing a polymer precursor onto a surface of a substrate, the substrate comprising:

a plurality of devices disposed in a molding compound to form a reconstituted substrate;

a first polymer layer disposed on the reconstituted substrate, the first polymer layer having a plurality of openings formed therethrough to expose a corresponding plurality of contact pads of each of the devices; and

a plurality of copper pillars respectively disposed in the plurality of openings, wherein a ratio of a height to a width of each of the copper pillars is more than about 2:1, and wherein at least a portion of each of the copper pillars extends above a surface of the first polymer layer;

heating the polymer precursor to form a second polymer layer;

heating an imprint stamp to above the glass transition temperature of the second polymer layer;

imprinting a pattern into the second polymer layer using the heated imprint stamp to form a plurality of openings therein; and

heating the second polymer layer to between about 250 °C and about 400 °C after imprinting the pattern.

2. The method of claim 1, wherein the polymer precursor comprises a polyimide precursor.

3. The method of claim 2, wherein imprinting the pattern into the second polymer layer comprises heating the imprint stamp to more than about 340 °C.

4. The method of claim 3, wherein imprinting the pattern into the second polymer layer takes place in an environment at less than about atmospheric pressure.

5. The method of claim 1, wherein the first polymer layer comprises a polyimide.

6. A packaging method, comprising:

forming a polymer layer on a surface of a carrier substrate, the carrier substrate comprising a structural base and a release layer disposed on the structural base, wherein the polymer layer is temporarily secured to the structural base by the release layer;

heating an imprint stamp to more than about 340 °C;

imprinting a pattern into the polymer layer to form a plurality of openings therethrough using the heated imprint stamp; and

forming a plurality of metal interconnects in the polymer layer comprising:

depositing a seed layer onto the carrier substrate and the polymer layer formed thereon;

forming a copper layer on the seed layer; and

removing portions of the seed layer and the copper layer from a surface of the polymer layer.

7. The method of claim 6, wherein forming the polymer layer comprises depositing a polyimide precursor comprising one or more solvents onto the release layer and heating the polyimide precursor to between about 120 °C and about 150 °C to remove only a portion of the one or more solvents therefrom.

8. The method of claim 7, further comprising heating the polymer layer to between about 250 °C and about 400 °C after imprinting the pattern.

9. The method of claim 7, wherein the structural base comprises glass or a rigid polymer.

10. The method of claim 7, wherein imprinting the pattern into the polymer layer takes place in an environment maintained at less than atmospheric pressure.

11. A packaging method, comprising:

dispensing a polyimide precursor onto a surface of a substrate, wherein the substrate comprises:

a plurality of devices each including an active portion having a metal layer and a passivation layer disposed on the metal layer;

a first polymer layer disposed on the passivation layer, the first polymer layer and the passivation layer having a plurality of openings formed therethrough to expose a corresponding plurality of contact pads on the metal layer; and

a plurality of copper pillars respectively disposed in the plurality of openings, wherein a ratio of a height to a width of each of the copper pillars is more than about 2:1, and wherein at least a portion of each of the copper pillars extends above a surface of the first polymer layer;

heating the polyimide precursor to between about 120 °C and about 150 °C to form a second polymer layer;

heating an imprint stamp to above the glass transition temperature of the second polymer layer;

imprinting a pattern into the second polymer layer using the heated imprint stamp to form a plurality of openings therein; and

heating the second polymer layer to between about 250 °C and about 400 °C after imprinting the pattern.

12. The packaging method of claim 11, further comprising forming a plurality of metal interconnects in the second polymer layer.

13. The packaging method of claim 12, wherein forming the plurality of metal interconnects in the second polymer layer comprises:

depositing a seed layer onto the patterned second polymer layer;

forming a copper layer on the seed layer; and

removing portions of the seed layer and the copper layer from a surface of the second polymer layer.