

5

- 4. The method of claim 3 further comprising prior to said applying:
disposing the resin in a reaction vessel with a mold; and
drawing a vacuum in the reaction vessel to urge the resin into the mold.
- 5. The method of claim 1 further comprising facilitating curing of the resin.
- 6. The method of claim 5 wherein said coupling further comprises coupling resin including a catalyst to the source of ultrasonic energy.
- 7. Apparatus for curing resin, comprising:
a vessel holding a gaseous coupling fluid at ambient temperature and atmospheric pressure; and
a source of ultrasonic energy disposed in the gaseous coupling fluid to acoustically couple the resin with the source of ultrasonic energy.
- 8. The apparatus of claim 7 further comprising a reaction vessel receiving resin therein and transmitting ultrasonic energy from the gaseous coupling fluid to the resin.

6

- 9. The apparatus of claim 8 further comprising a mold positionable in the reaction vessel to urge the resin into the mold if the reaction vessel is subjected to a vacuum.
- 10. A method for processing resin, comprising:
5 acoustically coupling resin to a source of ultrasonic energy, wherein said coupling further comprises coupling resin including a substrate to the source of ultrasonic energy;
disposing the resin in a gaseous coupling fluid;
10 applying ultrasonic energy to the resin at ambient temperature and pressure, wherein said applying further includes applying the ultrasonic energy to form composite material from the resin; and
prior to said applying:
15 disposing the resin in a reaction vessel with a mold; and
drawing a vacuum in the reaction vessel to urge the resin into the mold.

* * * * *