

We claim:

1. A composite reinforcing fiber, comprising:
a synthetic polymer resin; and
a fiber component selected from the group consisting of pulp fiber, nano-fiber, and mixtures or blends thereof.
2. The composite reinforcing fiber of claim 1, wherein the fiber component is composed of a material selected from the group consisting of carbon, mica, aramid, polyacrylonitrile, carbon nano-fiber, carbon nano-tube, graphene nano-ribbon and mixtures thereof.
3. The composite reinforcing fiber of claim 1, wherein the fiber component has a higher tensile strength, as compared to a reinforcing fiber absent of said fiber component.
4. The composite reinforcing fiber of claim 1, wherein the pulp fiber comprises aramid.
5. The composite reinforcing fiber of claim 1, wherein the fiber component has a length from about 0.5 to about 1.0 mm.
6. The composite reinforcing fiber of claim 1, wherein the synthetic polymer resin is selected from the group consisting of polyethylene, polypropylene, and mixtures or blends thereof.
7. A method of preparing a composite reinforcing fiber, comprising:
obtaining a synthetic polymer resin;
compounding the synthetic polymer resin with a fiber component selected from the group consisting of pulp fiber, nano-fiber and mixtures thereof;
forming a resin/fiber blend;
melting the resin/fiber blend; and

extruding the resin/fiber blend to form the composite reinforcing fiber.

8. The method of claim 7, further comprising compounding the fiber component with a water soluble resin prior to compounding the synthetic polymer resin with the fiber component.

9. The method of claim 8, further comprising extruding the fiber component with the water soluble resin and creating a master batch in pellet form.

10. The method of claim 8, wherein the water-soluble resin is selected from the group consisting of polyethylene, polypropylene and mixtures thereof.

11. The method of claim 7, wherein the melting of the resin/fiber blend is conducted in an extruder barrel and screw.