Discontinuous fiber-reinforced polymers have gained importance in the transportation industries due to their outstanding material properties, lower manufacturing costs and superior lightweight characteristics. One of the most attractive attributes of discontinuous fiber reinforced composites is the ease with which they can be manufactured in large numbers, using injection and compression molding processes.

Typical processes involving discontinuous fiber reinforced thermoplastic composite materials include injection and compression molding processes as well as extrusion. Furthermore, the automotive and appliance industries also use thermosets reinforced with chopped fibers in the form of sheet molding compound and bulk molding compound, for compression and injection-compression molding processes, respectively.