What is claimed is:

1. A non-woven fabric comprising a fiber wherein said fiber consists of:

(a) thermoplastic polyurethane polymer;

(b) crosslinking agent; and

(c) optionally one or more additives selected from the list consisting of opacifying pigments, colorants, stabilizers, lubricants, UV absorbers, processing aids, plasticizers, and flame retardants;

wherein said thermoplastic polyurethane polymer has a weight average molecular weight of from 100,000 to 800,000 Daltons and wherein said thermoplastic polyurethane polymer is the derived from diphenyl methane-4, 4'-diisocyanate, a hydroxyl terminated polyester, and a glycol having from 2 to 10 carbon atoms; and wherein said crosslinking agent comprises a pre-polymer of a hydroxyl terminated intermediate that is a polyether reacted with diphenyl methane-4, 4'-diisocyanate.

2. The non-woven fabric of claim 1, wherein said crosslinking agent is present at a level of from 5 to 20 weight percent based on the total weight of said thermoplastic polyurethane polymer and said crosslinking agent.

3. The non-woven fabric of claim ~~3~~2, wherein said crosslinking agent has a number average molecular weight of from 1,000 to 10,000 Daltons.

4. A method for producing a non-woven fabric comprising the steps of: (a) adding a preformed thermoplastic polyurethane polymer to an extruder; and

(b) melting said thermoplastic polymer in said extruder to create a polymer melt; and

(c) adding a crosslinking agent to said polymer melt; and

(d) passing said polymer melt mixed with said crosslinking agent through a die having multiple holes from which fibers are formed in a process selected from the group consisting of melt blown process, and spun bond process; and

(e) collecting said fibers in a random alignment to form said non-woven fabric;