4. The composition of Claim 1, wherein the aromatic diacid further comprises a diacid comonomer selected from the group consisting of terephthalic acid, isophthalic acid, phthalic acid, naphthaline diacid, adipic acid, azelic acid, sebacic acid, dodecanoic acid, 1,4-cyclohexane dicarboxylic acid, maleic acid, succinic acid, and 1,3,5-benzenetricarboxylic acid.

5. The composition of Claim 1, wherein the polymer is a copolymer derived from 2,5-furan diacid chloride, *m*-phenylene diamine, and isophthalic acid.

6. A process for preparing a polymer composition of Claim 1 comprising the steps:

~~e~~a) dissolving an aromatic diamine monomer in an polar solvent to form a diamine solution under inert atmosphere, wherein the solvent is selected from the group consisting of dimethyl acetamide, dimethyl formamide and dimethyl sulfoxide, and wherein the aromatic diamine comprises *m*-phenylene diamine;

~~f~~b) adding an aromatic diacid monomer or a derivative thereof to the diamine solution at a temperature in the range of -5−35 °C to form a reaction mixture, wherein the aromatic diacid comprises furan dicarboxylic acid or derivative thereof;

~~g~~c) continuing the reaction until there is no further increase in temperature or until a desired viscosity of the reaction mixture is achieved; and

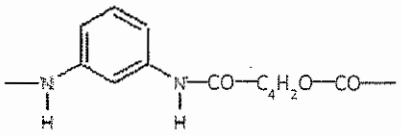
~~h~~d) isolating the polymer from the reaction mixture.

~~7. The process of Claim 6 further comprising adding a salt to the diamine solution before the step of adding an aromatic diacid monomer, wherein the salt comprises salts of alkali metal ions and alkaline earth metal ions.~~

~~8. The process of Claim 6 further comprising adding a salt to the reaction~~

~~mixture, wherein the salt comprises salts of alkali metal ions and alkaline earth metal ions.~~

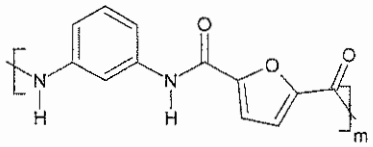
~~9.~~7. A shaped article comprising a polymer comprising repeat units of the following formula:



wherein the polymer is derived from

a. an aromatic diamine comprising *m*-phenylene diamine, and
b. an aromatic diacid or a derivative thereof comprising furan dicarboxylic acid or derivative thereof.

~~10.~~8. The shaped article of Claim ~~9~~7, wherein the polymer is poly(meta phenylene 2,5-furancarboxylamide) having the following general structure:



~~11. The shaped article of Claim 9, wherein the aromatic diamine further comprises a comonomer selected from the group consisting of *p*-phenylenediamine, *m*-xylylenediamine; 3,3'-dimethylbenzidine; 2,6-naphthylenediamine; 4,4'-diaminodiphenyl ether; 4,4'-diaminodiphenyl sulfone; 1,12-dodecanediamine; 1,2-ethylenediamine; 1,6-hexamethylenediamine; 1,5-pentamethylenediamine; 1,4-tetramethylenediamine; bis(aminomethyl)cyclohexane; 5-amino-1,3,3-trimethyl cyclohexanemethanamine; 1,12-dodecanediamine; and mixtures thereof.~~

~~12. The shaped article of Claim 9, wherein the aromatic diacid further~~

~~comprises a comonomer selected from the group consisting of terephthalic acid, isophthalic acid, phthalic acid, naphthaline diacid, adipic acid, azelic acid, sebacic acid, dodecanoic acid, 1,4-cyclohexane dicarboxylic acid, maleic acid, succinic acid, and 1,3,5-benzenetricarboxylic acid.~~

~~13.~~9. The shaped article of Claim ~~97~~ that is a fiber.

~~14.~~10. A spun yarn comprising the fiber of Claim ~~13~~9.

~~15.~~11. A woven fabric comprising the yarn of Claim ~~14~~10.

~~16.~~12. A garment comprising the yarn of Claim ~~14~~10.

~~17.~~13. A non-woven web comprising the fiber of Claim ~~13~~9.

~~18.~~14. A process for preparing a fiber, the process comprising the step of;

a) forming a fiber mixture of 0.1-50 weight% of a polymer composition of Claim 1; and
b) spinning the fiber mixture into a fiber.