CLAIMS

[Claim 1] An extra-fine fiber sheet comprising an extra-fine fiber assembly, wherein the assembly includes a solvent-spinnable polymer (A) having a weight average molecular weight of 5,000 to 100,000 as a main component and a polymer (B) having a weight average molecular weight equal to or more than 10 times as large as that of the polymer (A) as an accessory component;
the polymer (A) is (i) an ethylene-vinyl alcohol copolymer or (ii) a polyamide including a dicarboxylic acid unit and a diamine unit; and
the assembly comprises constituent fibers having an average fiber diameter of 10 to 500 nm.

[Claim 2] The extra-fine fiber sheet according to claim 1, wherein the polymer (A) is a low-conductive or non-conductive polymer, and/or the polymer (B) is a thickening polymer.

[Claim 3] The extra-fine fiber sheet according to claim 1 or 2, wherein the sheet has a composition ratio of the polymer (A) to the polymer (B) of (A) : (B) = 10 : 1 to 10,000 : 1.

[Claim 4] The extra-fine fiber sheet according to any one of claims 1 to 3, wherein the polymer (A) is (i) an ethylene-vinyl alcohol copolymer or (ii) a polyamide including a 1,9-nonanediamine unit and/or a 2-methyl-1,8-octanediamine unit as a diamine unit.

[Claim 5] The extra-fine fiber sheet according to claim 4, wherein the polyamide is a polyamide including a dicarboxylic acid unit and a diamine unit, the dicarboxylic acid unit comprising terephthalic acid unit at a percentage of 60% by mole or more, and the diamine unit comprising 1,9-nonanediamine unit and/or 2-methyl-1,8-octanediamine unit at a percentage of 60% by mole or more.

[Claim 6] The extra-fine fiber sheet according to any one of claims 1 to 5, wherein the polymer (B) is a polyethylene oxide, a polyethylene glycol or a polyacrylamide.

[Claim 7] The extra-fine fiber sheet according to any one of claims 1 to 6, wherein the polymer (B) has a weight average molecular weight of 500,000 or higher.

[Claim 8] The extra-fine fiber sheet according to any one of claims 1 to 7, the assembly has 5 or less bead-like structure generated per 100 μm^2 on a cross section of the extra-fine fiber assembly photographed at a magnification of 5,000.

[Claim 9] The extra-fine fiber sheet according to any one of claims 1 to 8, wherein the extra-fine fiber assembly is obtained by an electro-spinning method.