

CLAIMS

WHAT IS CLAIMED IS:

1. An article, wherein said article is a semiconductor manufacture cleaning component comprising:
 - 5 (a) about 70 wt% to about 90 wt% of a thermoplastic polymer comprising copoly(tetrafluoroethylene-perfluoro[propylvinyl ether]);
 - (b) about 10 to about 30 wt % of chopped carbon fiber;
 - (c) .001 to about 10 % of a sizing agent selected from the group consisting of polyvinylpyrrolidone, polyvinyl alcohol, copolyvinyl alcohol, copolyvinyl acetate, copolyvinyl alcohol-acetate and sodium carboxymethyl cellulose,
 - 10 optionally further comprising (d) less than 2,000 nanomoles per gram, of fiber, of sodium, potassium, calcium, and aluminum, combined; wherein the wt% in each of (a), (b) and (c) is based on the total weight of the component; and wherein said thermoplastic polymer (a), said chopped carbon fiber (b) and said
 - 15 sizing agent (c) are a mixture present in the form of a densified matte; and wherein said article has a coefficient of thermal expansion in the XY direction of about 10 ppm/K and a coefficient of thermal expansion in the Z direction which can be greater or less than in the XY direction.
- 20 ~~2. The article of claim 1, wherein the thermoplastic polymer comprises copoly(tetrafluoroethylene-perfluoro[propylvinyl ether]).~~
 3. An article, wherein said article is a semiconductor manufacture cleaning component comprising:
 - 25 (a) about 70 wt% to about 90 wt% of a thermoplastic polymer;
 - (b) about 10 to about 30 wt % of chopped carbon fiber;
 - (c) .001 to about 10 % of a sizing agent selected from the group consisting of: polyvinylpyrrolidone, polyvinyl alcohol, copolyvinyl alcohol, copolyvinyl acetate, copolyvinyl alcohol-acetate and sodium carboxymethyl cellulose; optionally further comprising (d) less than 2,000 nanomoles per gram, of sodium,
 - 30 potassium, calcium, and aluminum, combined; wherein the wt% in each of (a), (b) and (c) is based on the total weight of the component; wherein said thermoplastic polymer (a), said chopped carbon fiber (b) and said sizing agent (c) are a mixture present in the form of a densified matte; and wherein said article has a coefficient of thermal expansion in the XY direction of about 10 ppm/K and
 - 35 a coefficient of thermal expansion in the Z direction which can be greater or less than in the XY direction.