CLAIMS

1. A polishing pad having a polishing layer comprising a non-foamed polyurethane, wherein the non-foamed polyurethane is a reaction cured body of a polyurethane raw material composition containing an isocyanate-terminated prepolymer obtained by reacting a prepolymer raw material composition containing a diisocyanate, a high-molecular-weight polyol and a low-molecular-weight polyol; an isocyanate modified body polymerized by adding three or more diisocyanates; and a chain extender, and the addition amount of the isocyanate-modified body is 5 to 30 parts by weight with respect to 100 parts by weight of the isocyanate-terminated prepolymer.

2. The polishing pad according to claim 1, wherein the high-molecular-weight polyol is a polyether polyol having a number average molecular weight of 500 to 5000, and the diisocyanates is toluene diisocyanate and dicyclohexylmethane diisocyanate.

3. The polishing pad according to claim 1, wherein the isocyanate-modified body is a hexamethylene diisocyanate-modified body of isocyanurate type and/or biuret type.

4. The polishing pad according to claim 1, wherein the non-foamed polyurethane has an Asker D hardness of 65 to 80 degrees.

5. The polishing pad according to claim 1, wherein the cut rate is 2 μm/minute or more.

6. A method for producing a polishing pad, comprising the step of mixing a first component containing 5 to 30 parts by weight of an isocyanate-modified body polymerized by adding three or more diisocyanates with respect to 100 parts by weight of an isocyanate-terminated prepolymer obtained by reacting a prepolymer raw material composition containing a diisocyanate, a high-molecular-weight polyol and a low-molecular-weight polyol, with a second component containing a chain extender; and curing the mixture to prepare a non-foamed polyurethane.

7. A method for producing a semiconductor device, comprising the step of polishing the surface of a semiconductor wafer by using the polishing pad according to claim 1.

The invention claimed is:

1. A polishing pad having a polishing layer comprising a non-foamed polyurethane, wherein the non-foamed polyurethane is a reaction cured body of a polyurethane raw material composition containing an isocyanate-terminated prepolymer obtained by reacting a prepolymer raw material composition containing a diisocyanate, a high-molecular-weight polyol and a low-molecular-weight polyol; an isocyanate modified body polymerized by adding three or more diisocyanates; and a chain extender, and the addition amount of the isocyanate-modified body is 5 to 30 parts by weight with respect to 100 parts by weight of the isocyanate-terminated prepolymer, wherein a cut rate which is a dressed amount (μm) per minute of the polishing layer by dressing the polishing layer is 2 μm/minute or more.

2. The polishing pad according to claim **1**, wherein the high-molecular-weight polyol is a polyether polyol having a number average molecular weight of 500 to 5000, and the diisocyanates is toluene diisocyanate and dicyclohexylmethane diisocyanate.

3. The polishing pad according to claim **1**, wherein the isocyanate-modified body is a hexamethylene diisocyanate-modified body of isocyanurate type and/or biuret type.

4. The polishing pad according to claim **1**, wherein the non-foamed polyurethane has an Asker D hardness of 65 to 80 degrees.

5. A method for producing a polishing pad, comprising the step of mixing a first component containing 5 to 30 parts by weight of an isocyanate-modified body polymerized by adding three or more diisocyanates with respect to 100 parts by weight of an isocyanate-terminated prepolymer obtained by

reacting a prepolymer raw material composition containing a diisocyanate, a high-molecular-weight polyol and a low-molecular-weight polyol, with a second component containing a chain extender; and curing the mixture to prepare a non-foamed polyurethane.

6. A method for producing a semiconductor device, comprising the step of polishing the surface of a semiconductor wafer by using the polishing pad according to claim **1**.

7. The polishing pad according to claim **1**, wherein the cut rate is between 2 and 3 μm/minute.