Claims

1. A polishing pad for polishing a substrate, the polishing pad comprising:

a polishing body having a polishing surface and comprising a polymer matrix, the polishing body comprising:

a first region of the polymer matrix including a first region of the polishing surface, the first region having a first hardness and a first porosity; and

a second region of the polymer matrix including a second region of the polishing surface, the second region having a second hardness and a second porosity, wherein the second hardness is different than the first hardness and the second porosity is different than the first porosity.

2. The polishing pad of claim 1, wherein the first porosity differs in pore size from the second porosity.

3. The polishing pad of claim 1, wherein the first porosity differs in pore density from the second porosity.

4. The polishing pad of claim 1, wherein the first porosity differs in pore size and in pore density from the second porosity.

5. The polishing pad of claim 1, wherein the first and second region form a grading.

6. The polishing pad of claim 5, wherein the grading is an annular grading.

7. The polishing pad of claim 5, wherein the grading is an island grading.

8. The polishing pad of claim 5, wherein the grading is a step grading.

9. The polishing pad of claim 1, wherein the polymer matrix comprises polyurethane.

10. The polishing pad of claim 1, wherein the polymer matrix comprises polyurea.

Claims

1. A polishing pad for polishing a substrate, the polishing pad comprising:

a polishing body having a polishing surface and comprising a polymer matrix, the polishing body comprising:

a first region of the polymer matrix including a first region of the polishing surface, the first region having a first hardness and a first porosity; and

a second region of the polymer matrix including a second region of the polishing surface, the second region having a second hardness and a second porosity, wherein the second hardness is different than the first hardness and the second porosity is different than the first porosity, wherein the first region and second region are co-molded, and wherein the polishing body is continuously graded between the first region and the second region.

2. The polishing pad of claim 1, wherein the first porosity differs in pore size from the second porosity.

3. The polishing pad of claim 1, wherein the first porosity differs in pore density from the second porosity.

4. The polishing pad of claim 1, wherein the first porosity differs in pore size and in pore density from the second porosity.

5. The polishing pad of claim 1, wherein the first and second region form a grading.

6. The polishing pad of claim 5, wherein the grading is an annular grading.

7. The polishing pad of claim 5, wherein the grading is an island grading.

8. The polishing pad of claim 5, wherein the grading is a step grading.

9. The polishing pad of claim 1, wherein the polymer matrix comprises polyurethane.

10. The polishing pad of claim 1, wherein the polymer matrix comprises polyurea.