GROOVED CMP POLISHING PAD

Abstract

The present invention provides polishing pads for use in CMP processes. In one embodiment, a pad comprises a surface defining a plurality of grooves with landing surfaces separating the grooves, the landing surfaces together defining a substantially coplanar polishing surface, each groove having a depth of at least 10 mil and a width, W_G, with any two adjacent grooves being separated from each other a landing surface having a width, W_L, wherein the quotient W_L/W_G is less than or equal to 3. In a preferred embodiment, the surface of the pad defines a series of concentric substantially circular grooves. In an alternative embodiment, the surface of the pad defines a spiral groove having a depth of at least 10 mil and a width W_G, and a spiral landing surface outlining spiral groove the having a width, W_L, wherein the spiral landing surface defines a substantially coplanar polishing surface and the quotient W_L/W_G is less than or equal to 3.

Figure 1