

ABSTRACT

A polishing pad for chemical-mechanical polishing comprising a polymeric material comprising two or more adjacent regions which have the same polymer formulation and the transition between the regions does not include a structurally distinct boundary is provided. In a first embodiment, a first region and a second adjacent region have a first and second non-zero void volume, respectively, wherein the first void volume is less than the second void volume. In a second embodiment, a first non-porous region is adjacent to a second adjacent porous region, wherein the second region has an average pore size of 50 μm or less. In a third embodiment, at least two of an optically transmissive region, a first porous region, and an optional second porous region, are adjacent. Further provided are methods of polishing a substrate comprising the use of the polishing pads and a method of producing the polishing pads.