

CMP PAD WITH LOCAL AREA TRANSPARENCY

ABSTRACT

A CMP polishing pad comprising (a) a polishing layer having a polishing surface and a back surface opposite said polishing surface; said polishing layer having at least one cured opaque thermoset polyurethane region and at least one aperture region; said at least one cured opaque thermoset region has a porosity from about 10% to about 55% by volume; said at least one aperture region having (1) a top opening positioned below the polishing surface, (2) a bottom opening that is co-planar with said back surface and (3) straight line vertical sidewalls extending from said aperture top opening to said aperture bottom opening; said at least one aperture region filled with a cured plug of thermoset polyurethane local area transparency material that has a light transmission of less than 80% at a wavelength from 700 to 710 nanometers and is chemically bonded directly to a thermoset polyurethane opaque area; (b) an aperture-free removable release sheet covering at least a portion of said back surface of the polishing layer; and (c) an adhesive layer interposed between said polishing layer and said release sheet; said adhesive layer capable of adhering the polishing layer to a platen of a CMP apparatus after said release sheet has been removed.

FIG. 1