

RECYCLING OF LARGE-SIZE PHOTOMASK SUBSTRATE

ABSTRACT

A used large-size photomask substrate having a
5 patterned light-shielding film is recycled by (i) removing
the light-shielding film from the used substrate to provide a
photomask-forming glass substrate stock, (ii) resurfacing the
glass substrate stock by sand blasting, (iii) repolishing the
resurfaced glass substrate stock to yield a regenerated glass
10 substrate stock, (iv) applying a light-shielding film onto
the regenerated glass substrate stock to yield a regenerated
photomask-forming blank, and (v) processing the
light-shielding film of the blank into a pattern
corresponding to the desired exposure of a mother glass,
15 yielding a regenerated photomask substrate.

(Figure 1)