

Double-side polishing was performed under the same conditions as in Example 1, except that the thickness of the upper polishing pad was 0.60 mm, and the thickness of the lower polishing pad was 0.40 mm. The flatness was evaluated by the same method as in Example 1. That is, double-side polishing was performed under the conditions of $A+B = 1.00$ and $A/B = 1.50$ in Example 3.

[0056]

As a result, as can be seen from FIG. 2 and Table 1, Example 3 realized the relative GBIR value of 0.40, which value met the required value and was smaller than the GBIR values in Comparative Examples 1-3 using previous arts described later. In Example 3, silicon wafers with good flatness could be obtained like this. In addition, the F-ZDD was found to be $-1.1 \text{ (nm/mm}^2\text{)}$, becoming less than 0.

[0057]

(Comparative Example 1)

Double-side polishing was performed under the same conditions as in Example 1, except that both of the thicknesses of the upper polishing pad and the lower polishing pad were 1.20 mm. The flatness was evaluated by the same method as in Example 1. That is, double-side polishing was performed under the conditions of $A+B = 2.4 > 2.0$ and $A/B = 1.0$ in Comparative Example 1.

[0058]

These results are shown in FIG. 2 and Table 1. As can be seen from FIG. 2 and Table 1, the F-ZDD resulted in $1.0 \text{ (nm/mm}^2\text{)}$, becoming 0 or more. When $A/B \leq 1.0$, the F-ZDD became 0 or more like this. The GBIR became 1.15, overstepping the required value. It was confirmed that the GBIR came to increase and the flatness worsened when $A+B > 2.0$ like this.

[0059]

(Comparative Example 2)

Double-side polishing was performed under the same conditions as in Example 1, except that the thickness of the upper polishing pad was 1.50 mm, and the thickness of the lower polishing pad was 1.00 mm. The flatness was evaluated by the same method as in Example 1. That is, double-side polishing was performed under the conditions of $A+B = 2.50$ and $A/B = 1.50$ in Comparative Example 2.

[0060]

As a result, as can be seen from FIG. 2 and Table 1, the GBIR resulted in 1.40, overstepping the required value. The GBIR overstepped the required value like this when $A+B > 2.0$.

[0061]

(Comparative Example 3)

Double-side polishing was performed under the same conditions as in Example 1, except that both of the thicknesses of the upper polishing pad and the lower polishing pad were 0.50 mm. The flatness was evaluated by the same method as in Example 1. That is, double-side polishing was performed under the conditions of $A+B = 1.00$ and $A/B = 1.00$ in Comparative Example 3.

[0062]

As a result, as can be seen from FIG. 2 and Table 1, the F-ZDD resulted in 3.5 (nm/mm²), becoming 0 or more. The F-ZDD became 0 or more like this when $A/B \leq 1.0$.

[0063]

From the results of Examples 1-3 and Comparative Examples 1-3 described above, it was confirmed that silicon wafers satisfying the required value of GBIR and