Abstract: This study aimed to determine the effects of the plant dye and natural mineral water treatment on the absorption, retention and density values of the black poplar (*Populus nigra* L.) wood. Mineral water from the Antalya-Demre-Burğuc Region, leaves of the quince (*Cydonia vulgaris* L.) tree, pomegranate (*Pinuca granatum* L.) and walnut (*Juglans regia* L.) fruit shells' dye were used in the research. 10 different treatment liquids were prepared from the plant dyes and natural mineral water as single and double. The sapwood samples of black poplar tree were treated with these liquids by using immersion method. Then, the absorption, retention and density properties of wood samples were investigated. The results show that the natural mineral water and plant dye treatments had a statistically significant effect on the absorption, retention and density values of the black poplar wood. While the highest absorption value was obtained with 0.344 g/cm³ of mineral water + quince dye mixture, the lowest value was obtained with 0.260 g/cm³ of mineral water + walnut dye mixture. For retention, the highest (3.686%) and the lowest (0.491%) values was obtained with pomegranate dye and the quince dye, respectively. The highest density value (0.423 g/cm³) was obtained with mineral water + walnut dye mixture, but the lowest value (0.383 g/cm³) was obtained with Quince paint. In addition, the treatment of mineral water as a dual mixture with plant dyes increased the values of all three properties relative to treatments with single fluid. **Keywords:** Mineral, Dye, Poplar, Wood, Absorption, Retention, Density