

Black Composite Particle, Black Resin Composition, Color Filter Substrate and
Liquid Crystal Display

ABSTRACT

Disclosed are black composite particles having a high light-shielding performance suitable as a black component such as a black matrix in a color filter. Further disclosed is a black resin composition from which a black matrix having a high light-shielding performance can be formed. The black composite particles are represented by the composition formula: $\text{TiN}_x\text{O}_y \cdot z\text{X}$ (wherein X is a metal atom such as silver; x is a number greater than 0 and less than 2; y is a number not less than 0 and less than 2; and z is a number greater than 0 and less than 10). The black resin composition comprises at least a light shielding agent, a resin, and a solvent and comprises the black composite particles as the light shielding agent.