

ABSTRACT

COMPOSITE REINFORCING MATERIAL AND MOLDING MATERIAL

Provided is a composite reinforcing material excellent in mechanical strength.

The composite reinforcing material comprises at least graphene-like exfoliated from a graphite-based carbon material and a reinforcing material dispersed in a base material.

The graphite-based carbon material is characterized by having a rhombohedral graphite layer (3R) and a hexagonal graphite layer (2H), wherein a Rate (3R) of the rhombohedral graphite layer (3R) and the hexagonal graphite layer (2H), based on an X-ray diffraction method, which is defined by following Equation 1 is 31% or more:

$$\text{Rate (3R)} = P3/(P3+P4) \times 100 \cdots \cdots (\text{Equation 1})$$

wherein

P3 is a peak intensity of a (101) plane of the rhombohedral graphite layer (3R) based on the X-ray diffraction method, and

P4 is a peak intensity of a (101) plane of the hexagonal graphite layer (2H) based on the X-ray diffraction method.

FIG. 20