According to a second aspect of the present disclosure, there is provided a method for producing the above three-dimensional shaped object containing a fluororesin, the method including: shaping a fluororesin powder by powder bed fusion, and annealing after the shaping by powder bed fusion.

An embodiment of the above method for producing the three-dimensional shaped object including punching after the shaping by powder bed fusion.

In an embodiment of the above method for producing the three-dimensional shaped object, the fluororesin powder is an unmelted fluororesin powder that is subjected to another shaping by powder bed fusion and collected.

In an embodiment of the above method for producing the three-dimensional shaped object, the fluororesin has an MFR of 0.1 g/10 mins or more.

In an embodiment of the above method for producing the three-dimensional shaped object, the fluororesin is a tetrafluoroethylene-perfluoroalkoxyethylene copolymer, a tetrafluoroethylene-hexafluoropropylene copolymer, or an ethylene-tetrafluoroethylene copolymer.

CLAIMS

1. A three-dimensional shaped object comprising a fluororesin, wherein the three-dimensional shaped object is a laminate of a layer according to the slice data of the three-dimensional structure, and
the three-dimensional shaped object has a tensile stress at break of 9 MPa or more, and a tensile elongation at break in the direction perpendicular to the shaped plane of 20% or more.

2. The three-dimensional shaped object according to claim 1, wherein the tensile stress at break is 10 MPa or more.

3. The three-dimensional shaped object according to claim 1 or 2, wherein the tensile stress at break is 19 MPa or more.

4. The three-dimensional shaped object according to any one of claims 1 to 3, wherein the tensile elongation at break is 200% or more.

5. The three-dimensional shaped object according to any one of claims 1 to 4, wherein the three-dimensional shaped object has a surface roughness (Ra) of 30 μm or less.

6. The three-dimensional shaped object according to any one of claims 1 to 5, wherein the fluororesin has an MFR of 0.1 g/10 mins or more.

7. The three-dimensional shaped object according to any one of claims 1 to 6, wherein the fluororesin is a tetrafluoroethylene-perfluoroalkoxyethylene copolymer, a tetrafluoroethylene-hexafluoropropylene copolymer, or an ethylene-tetrafluoroethylene copolymer.

8. A method for producing the three-dimensional shaped object containing a fluororesin according to claim 1, the method comprising:

shaping a fluororesin powder by powder bed fusion, and

annealing after the shaping by powder bed fusion.

9. The method for producing the three-dimensional shaped object according to claim 8, comprising punching after the shaping by powder bed fusion.

10. The method for producing the three-dimensional shaped object according to claim 8 or 9, wherein the fluororesin powder is an unmelted fluororesin powder that is subjected to another shaping by powder bed fusion and collected.

11. The method for producing the three-dimensional shaped object according to any one of claims 8 to 10, wherein the fluororesin has an MFR of 0.1 g/10 mins or more.

12. The method for producing the three-dimensional shaped object according to any one of claims 8 to 11, wherein the fluororesin is a tetrafluoroethylene-perfluoroalkoxyethylene copolymer, a tetrafluoroethylene-hexafluoropropylene copolymer, or an ethylene-tetrafluoroethylene copolymer.