PHOTORETICULATING COMPOSITION AND ITS COMPONENTS FROM RENEWABLE SOURCES, FOR THREE-DIMENSIONAL PRINTING PROCESSES

ALMA MATER STUDIORUM-UNIVERSITÀ DI BOLOGNA



New composition for 3D printing derived from renewable sources. It has similar or better performance as regards both the tensile strength and the flexibility / deformability compared to the currently available formulations of origin fossil. Being a natural material, it allows to obtain a more sustainable impact on the environment.

Protection: Italy, with the possibility to extend internationally

Inventors: Mauro Comes Franchini, Mirko Maturi

INVENTION

In recent years, the technique of 3D printing has found increasingly wide applications in the context of large-scale industrial production. The materials available on the market and in literature that can be used for three-dimensional printing are of fossil origin and therefore do not meet the principles of the green economy, which expect the use of products from renewable sources and not oil and gas derivatives. The new composition obtained by the inventors has the peculiarity of being obtained from materials derived from natural sources. In particular, these formulations are developed with a high bio-based content over 90%.

ADVANTAGES

- Provide a green alternative to products of fossil origin currently used for 3D printing;
- Guarantee the same or better performance than the products currently on the market for 3D printing;
- The formulation could have the same cost and the same technical performance, guaranteeing the sustainability of the process.

APPLICATIONS

• This invention, due to its technical performance, allows it to be used in the world of 3D printing for objects, accessories, clothing and others.





ALMA MATER STUDIORUM Università di Bologna