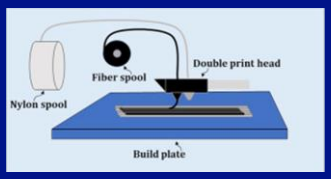
ENGINEERING AND ENVIRONMENT

TECHNOLOGY OFFER

3D PRINTING OF STRONG FIBER REINFORCED POLYMERS (3DPSTRONG)



High-performance fiber reinforced polymer (FRP) composites are at increasing demand in key industry sectors (aerospace, automotive) due to modern lightweight design strategy, which triggers reduced structural weight while preserving the high mechanics performances; reduced fuel consumption and consequent reduced NOx emission; and increased design flexibility compared to traditional isotropic materials.

TECHNOLOGY DESCRIPTION

The technology resulting from the research consists of using the 3D printed FRP composites as an alternative to FRP manufactured through classical methods. The goal of achieving high-performance 3D printed composite materials is approached through considering high-performance continuous fiber reinforcements for the composite material, and considering high-performance engineering thermoplastic polymers as matrix for the 3D printed composite material. In this way, the project addresses high-performance and lightweight applications operating under severe loading and environmental conditions.

APPLICATION AND TARGET MARKET

This technology is a new variation of the market available solutions. The potential target markets may be 3D printing industry for end users in industries like aerospace, automotive, nuclear, bio-mechanics.

COMPETITIVE ADVANTAGES

- Increased capacity of the relevant industry sectors which will use the developed products and technologies.
- More flexible and dynamic production.
- More efficient usage of resources and raw materials.

+INFO:

https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/opportunities/horizon-results-platform/41477

TIME-TO-MARKET
The technology is tested at laboratory level.

DEAL SOUGHT
License agreement.
Co-development Agreement.

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