

3D Printing Service Bureau CRP Technology Launches Windform SL, the Top-of-the-Line Super Lightweight Composite for Professional 3D Printing

CRP Technology, a pioneering company in the 3D printing industry and a leading 3D printing service bureau, introduces Windform SL, the twelfth material in the Windform TOP-LINE series, setting new standards in additive manufacturing. Windform SL, a polyamide-based composite reinforced with Carbon fibers, combines exceptional lightweight characteristics with a low density of 0.87 g/cc, making it an ultra-light and rigid material.

In the rapidly evolving field of Additive Manufacturing, the globally leading 3D printing service bureau CRP Technology unveils Windform SL, a groundbreaking material for Powder Bed Fusion/Selective Laser Sintering professional 3D printing. As the twelfth addition to the prestigious Windform TOP-LINE range (created by CRP Technology), Windform SL marks a significant leap forward in the AM industry.

Windform SL, a black polyamide-based composite reinforced with carbon fibers, is exceptionally light, as indicated by the "SL" designation, standing for "Super Light," and boasts a density of 0.87 g/cc. This unique combination of characteristics, blending lightness and rigidity, positions Windform SL as a premium material.

The market debut of Windform SL, occurring just a few months after the introduction of CRP Technology's second elastomeric material (Windform TPU) and the eleventh addition to the TOP-LINE range, reaffirms the company's unwavering commitment to innovation in the realm of 3D printing.

Franco Cevolini, CEO and Technical Director of CRP Technology, comments: "Our commitment to advancement is resolute. We are a historic, pioneering company continuously innovating, creating top-of-the-line materials for professional 3D printing, and Windform SL is the latest proof, a further step forward in our growth journey that keeps us at the forefront of the industry.

As a leading 3D printing service provider, I am confident that this material will swiftly become the winning choice for many UAV and automotive customers relying on our 3D printing department for the manufacturing of their advanced parts."

Windform SL is particularly well-suited for producing functional prototypes and components in the UAV/UAS sector, and applications demanding a balance of lightness, stiffness, and thermal resistance.

The HDT at 1.82 MPa of 182.5 °C, combined with high values of Specific Tensile Modulus, Specific Tensile Strength, and Impact Strength (Charpy and Izod), are among the key features of Windform SL. These characteristics indeed provide it with the ability to maintain structural stability under intense stress, even at elevated temperatures, ensuring reliable performance in demanding environments.

The post-process surface finish is equally noteworthy, with Ra values of 5.44 µm after the SLS process, 1.56 µm after manual finishing, and 0.83 µm after CNC processing, ensuring smooth and precise surfaces.

Windform SL is more than just a material; it is an advanced solution for the future of professional 3D printing. With broad applications in the UAV sector and beyond, Windform SL promises to revolutionize the production of sophisticated and efficient components across various fields, from aerospace to automotive, ensuring lightweight without the need to reduce thickness.