Milan, 5 July 2022

RadiciGroup supports the Politecnico di Milano Dynamis PRC team and their new racing car, *DP13 Autonoma*

The new vehicle prototype uses 3D printing material formulated by the Group to maximize mechanical and aesthetic performance

The RadiciGroup **Radilon® Adline** brand of **3D printing filaments** is now also part of the new **single-seat racing car designed by the Politecnico di Milano (PoliMi) Dynamis PRC team**. Over one hundred engineering and design students worked on fine-tuning the new 2022 **electric model**, which, for the first time, is also designed to work in **self-driving mode**.

Every year, the PoliMi **Dynamis PRC** racing team designs a new prototype **Formula SAE car** that competes in the **international university engineering design championship**. In the last two racing seasons, the Dynamis PRC team was ranked as the best Italian team and achieved excellent results at the international level.

Angelo Radici, president di RadiciGroup, commented: *"This year the Group decided to support the PoliMi university project, in keeping with the **Group's care for supporting young students** (aged 19 to 25) who are committed to combine both their studies and extracurricular activities in the automotive sector, where RadiciGroup has great competence in materials and applications."*

"We were contacted by the PoliMi team to see if we could support them with our innovative materials," said **Chiara Devasini, marketing & development project leader of RadiciGroup High Performance Polymers**. *"For over 40 years, we have been part of the automotive supply chain. We provide innumerable solutions that have been developed to meet demanding technical requirements and, in recent years, we have been particularly focusing on e-mobility. After a series of meetings concerning the young students' needs for their new project, we thought of using one of the products in our Radilon® Adline range specifically developed for additive manufacturing. These filaments are based on special polymer grades that have advanced technical characteristics, such as mechanical, chemical and thermal resistance, and are suitable not only for prototyping but also for manufacturing functional and structural components, as needed in this project."*

Indeed, using the RadiciGroup material, an **engine cable support** and **flap ribs** were printed for the race car. The **support** is needed to keep the engine cable in the correct position and becomes very fragile during sharp turns. The internal **ribs** are essential components for the structure and behaviour of the carbon wing profile.

Moreover, thanks to the collaboration of **Ciano Shapes, official RadiciGroup distributor of 3D printing materials** with strong experience in printing, small wing prototypes were printed. These parts turned out to be essential for the Dynamis team to make certain technical assessments of the component design. This collaboration aimed at experimenting and identifying new solutions for the future.

"The components of the DP3 car had to be developed with high performance, yet lightweight, products," noted **Ambra Suardi, R&D scouting & consumer industrial goods project leader of RadiciGroup High Performance Polymers**. "*The light weight of the car is a fundamental requirement, but during the development of the project we determined that both the engine cable support and the aerodynamic flap ribs are parts under mechanical stress. Radilon® Adline CS CF10 HP BK is a specific product for additive manufacturing that is polyamide-based and reinforced with carbon fibre. Consequently, the density of the grade allows for the development of lightweight yet high performance parts, featuring excellent mechanical resistance and stiffness. Additionally, our Radilon® Adline CS CF10 HP BK is characterized by good processability during 3D printing, a factor that makes it suitable even for printers that are not high-end professional models, as well as versatile for use in a wide range of applications."*

The PoliMi student formula team will compete in the Formula SAE championship, an **international university competition** with more than 15 global events and 600 participating universities. The DP13 Autonoma is ready to take the track on:

- 16-17 July at the Varano track
- 8-12 August at the Hungaroring track
- 20-21 August at the Hockenheimring track

For more information and updates on the races, see the team website dynamisprc.com or social media pages:

- Instagram: @dynamisprc
- Facebook: Dynamis PRC
- Linkedin: Dynamis PRC

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