NECURON® 702
BLOCK MATERIAL - CASE STUDY

Customer Reference

PICCARD rocket - GRP / CFRP lamination tools made from NECURON® 702

Customer:	Academic Space Initiative (ARIS), Switzerland
Products used:	NECURON® 702
Industry:	Space
Application:	GRP / CFRP lamination tools

1. Issue

Due to the renewed cancellation of this year's Spaceport America Cup in New Mexico, USA, the ARIS team traveled to Ponte de Sor, Portugal on October 10th to compete against 17 other teams from all over Europe in the European rocket competition EuRoC.
During this week, which the ARIS team spent in Portugal, their rocket was presented to a technical jury and the public and PICCARD was launched for the first time.
This start marked ARIS ‚first hybrid-powered flight with a self-built and tested engine. PICCARD reached a height of 6.5 km, won the EuRoC Flight Award in the 9000 m hybrid category and a new world record was set.
Never before has a hybrid powered rocket of this category, developed by students, flown higher. In addition, a Swiss television team followed her trip to Portugal and broadcast a report about it on Swiss television.
ARIS is now finalizing the PICCARD project and passing on the accumulated knowledge to the next ARIS teams.
On the one hand, there is the successor to PICCARD the HELVETIA project, which will take place at the Spaceport America Cup in June 2022, and the PERIPHAS project, which will integrate a self-developed, autonomous recovery / landing system in one of their rockets.

2. Solution / Result

The NECURON® 702 was used by ARIS to manufacture the lamination tools. After the tools were milled from NECURON® 702, the components of the prototype were further processed by hand lamination with glass fiber and carbon fiber reinforced plastics.

3. Advantages

The customer decided to use NECURON® 702 because the material has a very homogeneous structure, can be milled very quickly and the tool surface can be excellently prepared for the lamination process with very little rework.

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Application Images