

Press Release

Aheadd® CP1, Constellium's high-performance aluminium additive manufacturing powder, approved for use on Formula 1 racing cars

Paris, May 2, 2023 – Constellium SE (NYSE: CSTM) announced today that its [Aheadd® CP1](#) aluminium additive manufacturing powder was approved for use in Formula 1 cars beginning in the 2024 season. Constellium has partnered with [Velo3D](#) and PWR Advanced Cooling Technology to start providing highly efficient, compact, and lightweight heat exchangers for Formula 1 vehicles along with a variety of components for high-performance customers. Constellium is working with multiple partners on additional Aheadd® CP1-based applications.

Aheadd® CP1 is a pioneering Aluminium-Iron-Zirconium powder solution designed specifically for additive manufacturing without volatile elements, rare earths, silicon or ceramic particle additions. Aheadd® CP1 brings multiple advantages including high strength and ductility, excellent thermal/electrical conductivity, high productivity processing, and simplified post-processing.

"We are proud to have our high-performance additive manufacturing aluminium powder approved for use on Formula 1 race cars," said Alireza Arbab, Head of the Additive Manufacturing team at Constellium C-TEC. "Our customers can now develop a wide range of high-performance components, ranging from highly complex heat exchangers to structural parts. The benefits include previously impossible designs, cost-efficient parts, reduced machine utilization time and better ROI."

"Aheadd® CP1 is a fantastic addition to our additive manufacturing services and Velo3D's unparalleled print capabilities, and coupled with [PWR](#)'s brazed fin technology, it creates a unique performance differentiator for our customers," said Mark Booker, PWR Technical Project Manager. "Our goal is to give our racing customers a superior advantage on the track and we look forward to seeing these teams win using new parts manufactured by PWR."

"Our team is committed to listening to customers and to creating scalable solutions for metal AM materials," said Dr. Zachary Detweiler, Velo3D Vice President of Technology. "Aheadd® CP1 is the first alloy qualified in our Augsburg, Germany European Technology Center."

[Aluminium Additive Manufacturing](#) is increasingly gaining traction, as more applications are being developed for the aerospace, automotive and motor sport, defense, satellite, semiconductor, and transportation industries. To respond to this growing demand, Constellium has developed [Aheadd®](#),

Jason Hershiser – Investor Relations
Phone: +1 443 988-0600
investor-relations@constellium.com

Delphine Dahan-Kocher – Communications
Phone: +1 443 420 7860
delphine.dahan-kocher@constellium.com

a new generation of optimized high-performance aluminium powders for the Laser Powder Bed Fusion (LPBF) process.

▲ About Constellium

Constellium (NYSE: CSTM) is a global sector leader that develops innovative, value added aluminium products for a broad scope of markets and applications, including packaging, automotive and aerospace. Constellium generated €8.1 billion of revenue in 2022.