



FOR IMMEDIATE RELEASE

ALPINE ADVANCED MATERIALS INTRODUCES RAPID PROTOTYPE MOLDING TO DRAMATICALLY SPEED AND LOWER THE COST OF PART TESTING AND PROOF

DALLAS (August 2022) – [Alpine Advanced Materials](#) has introduced Rapid Prototype Molding (RPM) using Addifab’s proprietary resin system to give clients a more rapid tool manufacturing solution that provides a functional and testable part at a fraction of the cost. Complementing Alpine’s suite of high-performance engineered materials and advanced design services, RPM Freeform Injection Molding delivers complex injection molded parts more quickly and affordably than when using standard steel molds.

“The clients we work with whose parts must meet various certifications – UL, FAA, and MIL-spec, among others – need to have a ‘real’ part to test against their real-world challenges. RPM facilitates that by getting testable parts into the field quickly,” said David Brantner, Chief Executive Officer of Alpine Advanced Materials. “Think of companies bidding for military or aerospace contracts – it’s powerful to have data that backs up whether your components actually work.”

Filling the gap between a 3D printed part, which can get a client close in shape but is limited by mechanical performance, and an injection molded part, which provides form and function but requires investment in tooling, RPM delivers production-level components at a relatively low cost ideal for low volume testing. Giving product designers the chance to fully prove a part before committing to a steel mold, RPM also allows for design iterations that make testing more dynamic.

“The design freedom Alpine can now offer their clients with Addifab Freeform Injection Molding opens the way to faster, cheaper, and greener product development,” said Carsten Jarfelt, Chief Commercial Officer of Addifab in the USA. “Our technology supports product development with economical prototype tooling, cutting an average of 85 percent off the price a first functional component, and can make it faster than ever before.”

Using RPM, Alpine clients can additively manufacture a tool cavity injection mold, a negative of the designed part, then create the prototype using the dramatically cheaper mold. Once produced, the mold is dissolved away, leaving an injection molded prototype with fiber alignment for strength and without the surface finish issues of 3D printing. Additionally, with separable components, RPM allows for two-part tools that can be used repeatedly for low volumes that also convey both form and function equivalent to that of a standard steel tool. Alpine is known for both HX5 and its advanced design for manufacturing services, helping companies evolve to use new materials and methods in designing superior parts and components.

“One of the biggest barriers in transitioning to advanced materials is the weighty cost and time commitment required to test actual parts. Too often, the prospect of paying for a prototype that will cost tens of thousands of dollars stops innovation dead in its tracks,” added Brantner. “With RPM, we allow our clients across aerospace, defense, unmanned aerial vehicles, space and outdoor to more easily tap into the power of new material and design technology for dramatically less time and money.”

About Alpine Advanced Materials

Alpine Advanced Materials is a leading expert in the design and manufacture of custom-engineered parts for the world’s most demanding aerospace, defense, energy, space, and outdoor applications. With experience across multiple industries, a collaborative approach, and deep expertise in designing for manufacturing, Alpine delivers the future of innovation.

Alpine’s flagship nanocomposite material HX5® offers the strength of aluminum at half the weight with environmental and thermal performance to withstand the harshest environments. HX5 can be formed into complex shapes and easily coated without sacrificing strength, performance or aesthetics. From prototypes to full-scale injection molding production, HX5 is an ideal alternative to the cost and production challenges associated with aluminum. For more information, visit www.alpineadvancedmaterials.com.

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