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PIPER
PLASTICS, INC.

Engineering • Machining • Distribution
Plastics and Metals



PIPER PLASTICS INTRODUCES KYRONMAX™ - **THE STRONGEST LINE OF INJECTION MOLDABLE** **THERMOPLASTIC COMPOSITES AVAILABLE**

Chandler, AZ USA - The new KyronMAX™ series from Piper Plastics bridges the performance gap between components produced via standard injection molding compounds and pre-preg lay-up composite materials. KyronMAX materials allow parts to be injection molded at high volumes with strengths that approach lay-up composite and metals.

The KyronMAX series significantly changes the way design engineers think of plastic materials. The unique combination of a proprietary high pressure molding technology, coupled with a state-of-the-art material technology, is used to produce the highest strength structural components made from thermoplastics today. These new materials offer mechanical properties which meet, and in some cases exceed, those of metals.

Generally speaking even the strongest moldable plastics cannot match the strength of metals so the metal part geometry must be altered and re-engineered to utilize plastic materials. This often involves adding much more material volume of the plastic which can compromise the weight savings and cost reduction advantages of the conversion to plastics. KyronMAX polymers offer mechanical

properties that sometimes meet or exceed those of metals. The resulting component design can more easily replicate the original metal design, minimizing the mass of plastics required while realizing all of the engineering benefits of the plastic materials.

The following is a summary of the product features of the new KyronMAX series.

- *Tensile strength to weight ratio*- Higher than steel
- *Weight* - Nearly 75% lighter than steel and approximately 40% lighter than titanium
- *Lower component cost* - The ability to mold components in a high volume tightly controlled process significantly reduces the manufacturing costs associated with prepreg lay-up materials.
- *Product flexibility* - The product will be available in three performance levels allowing designers to select a cost vs. performance option to match their needs.
- *Better “practical toughness” due to lower filler loadings* - The revolutionary filler generates high mechanical performance with lower fiber content increasing the material’s strain, which allows the part to yield and not fracture.

“The KyronMAX technology is a game changer. Piper’s expertise in fabricating components from both metals and plastics, combined with our proprietary polymer processing techniques, gives our customers an uncommon advantage,” said Dave Wilkinson, Materials Engineering Manager at Piper. “We understand factors critical to component design, the influence of reinforcements and additives, and the effects of processing and tool design. Knowing the complexities of plastics is essential to reliable replacement of metals. For more information on the KyronMAX series, visit www.piperplastics.com/pages/kyronmax/kyronmax.html.

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About Piper Plastics

Piper Plastics provides a high-tech and diversified customer base with complete solutions to their engineering and finished component needs by blending advanced manufacturing technologies with state-of-the-art polymer science. Piper Plastics is recognized globally as a leading source for high performance polymer materials and for precision machined and injection molded components, with facilities in Chandler, AZ; Libertyville, IL; and Rayong, Thailand. For more information, please visit www.piperplastics.com.